Module Handbook

Environmental Planning

and

Territorial Development

Master of Science

Required elective module

Major Nature Conservation and Landscape Planning (Naturschutz und Umweltplanung)

Module Title Methods of Soil Analysis *(Bodenuntersuchungsverfahren)*			**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development			**Module Type** Required elective
Credit Points 6	**Frequency of Occurrence** winter semester		**Language** German
Special Skills Area	**Recommended Semester of Study**		**Module Duration** 1 Semester
Student Workload			
Total Nr of Hours 180 Hrs	Contact Hours 70 Hrs		Self Study Hours / Examination 110 Hrs
Further Use of Module BSc Geowissenschaften			

1	**Qualification Goals** Students acquire a basic knowledge of the most important laboratory methods in the fields of soil physics, soil chemistry and soil ecology and learn to familiarise themselves with the basic and methodological aspects of soil analysis procedures. Students should apply their basic knowledge of soil science and learn to apply various practical analysis techniques, evaluating the option of applying these to questions of soil science in a meaningful way. In preparation, the relevant calculation and evaluation procedures are presented in a preceding theoretical exercise and then taught and consolidated using practical examples. Students understand pedological laws and are able to apply and implement the knowledge under soil ecological aspects. Technical, methodological, personal and social competences are trained and consolidated throughout the theoretical exercise including measuring, analysis and documentation. The presentation of the Results should be finally presented in an independently prepared report, through which the students learn to critically classify results and assess their informative value.
2	**Module Contents** Calculation and evaluation techniques as well as key methods for investigating soil properties in the laboratory.
3	**Forms of Teaching and Courses** 1 SWS theoretical exercise, 4 SWS practical exercise
4a	**Participation Requirements** B Gru-10
4b	**Recommendations** None
5	**Requirements for Allocation of Credit Points**
	Course Achievements Written or oral examination (ungraded) for the theoretical exercise, term paper for the practical exercise
	Examination Requirements none
6	**Literature** Scheffer/Schachtschabel, Blume, H.-P. et al (2010): Lehrbuch der Bodenkunde. 16. Auflage. Spektrum, Heidelberg - Berlin Blume, H.-P. et al. (2011) Bodenkundliches Praktikum Spektrum, Heidelberg - Berlin

7	**Further Information** None
8	**Faculty of Natural Sciences** **Institut of Soil Science** **https://www.soil.uni-hannover.de/**
9	**Person responsible for module** **Dr. Nina Stoppe-Struck**

Module Title Current Issues in Nature Conservation and Landscape Planning I *(Aktuelle Fragen des Naturschutzes und der Landschaftsplanung I)*		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** each semester	**Language** German/English
Special Skills Area	**Recommended Semester of Study** from 1st semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs Seminar	Self Study Hours / Examination 90 Hrs Preparation and Re-viewing of seminars and exercises
Further Use of Module		

1	**Qualification Goals** Students acquire specialized knowledge on current topics of the discipline. With a high degree of personal involvement, students learn to grasp these topics, to discuss them critically within the group, to question and expand them.
2	**Module Contents** Advanced knowledge on varying current topics of nature conservation and landscape planning. This can be current research questions or specialised technical or methodological knowledge. Exemplary topics from previous semesters: „Landscape Planning and Ecosystem Services", Prof. Dr.-Ing. Christian Albert „Nature conservation and environmental economics", Prof. Dr. Bettina Matzdorf „Statistics for Environmental Planning", Dr. Miguel Angel Cebrián-Piqueras
3	**Forms of Teaching and Courses** This module can be taught either in lecture or seminar form
4a	**Participation Requirements** none
4b	**Recommendations** **none**
5	**Requirements for Allocation of Credit Points**
	Course Achievements: The coursework will be set in accordance with the content by each lecturer of the module.
	Examination Requirements oral examination (30 min) or seminar assignment oder exercises or combined assessment
6	**Literature** Special selection matching the currently announced topics.
7	**Further Information** **none**
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences, Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Studiendekan/Studiendekanin

Module Title Current Issues in Nature Conservation and Landscape Planning II *(Aktuelle Fragen des Naturschutzes und der Landschaftsplanung II)*		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** each semester	**Language** German/English
Special Skills Area	**Recommended Semester of Study** from 1st semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs Seminar	Self Study Hours / Examination 90 Hrs Preparation and Re-viewing of seminars and exercises
Further Use of Module		

1	**Qualification Goals** Students acquire specialized knowledge on current topics of the discipline. With a high degree of personal involvement, students learn to grasp these topics, to discuss them critically within the group, to question and expand them.
2	**Module Contents** Advanced knowledge on varying current topics of nature conservation and landscape planning. This can be current research questions or specialised technical or methodological knowledge. Exemplary topics from previous semesters: „Landscape Planning and Ecosystem Services", Prof. Dr.-Ing. Christian Albert „Nature conservation and environmental economics", Prof. Dr. Bettina Matzdorf „Statistics for Environmental Planning", Dr. Miguel Angel Cebrián-Piqueras
3	**Forms of Teaching and Courses** This module can be taught either in lecture or seminar form
4a	**Participation Requirements** none
4b	**Recommendations** **none**
5	**Requirements for Allocation of Credit Points**
	Course Achievements: The coursework will be set in accordance with the content by each lecturer of the module.
	Examination Requirements oral examination (30 min) or seminar assignment oder exercises or combined assessment
6	**Literature** Special selection matching the currently announced topics.
7	**Further Information** **none**
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences, Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Studiendekan/Studiendekanin

Module Title Environmental Law and Administration (*Umweltrecht und –verwaltung*)		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** Usually in the winter semester	**Language** German
Special Skills Area	**Recommended Semester of Study** from 1st semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs seminar	Self Study Hours / Examination 90 Hrs Preparation and Re-viewing of lecture and seminar
Further Use of Module M. Sc. Landschaftsarchitektur		

1	**Qualification Goals** Specialised knowledge of environmental and nature conservation law, as well as the administrative structure and conditions of administrative actions; promotion of strategic thinking.
2	**Module Contents** • Organisation of the environmental administration with tasks of the authorities and associations, implementation of nature conservation by institutions and organisations of nature conservation as well as by other technical authorities and disciplines (incl. national and international guidelines, FFH-RL, FFH-VP) • Characteristic institutional problems in enforcement and appropriate forms of governance to overcome them.Methoden der qualitativen sozialwissenschaftlichen Forschung • Specific issues of construction planning law (constitutional law, urban land use planning, formal and material requirements for urban land use planning, admissibility of projects under construction planning law), nature conservation law and water law. • Immission control from the particular perspective of implementation (licensing procedures, regulations on protected areas, etc.). Am Beispiel spezieller und aktueller Fragen des Umweltschutzes sollen rechtliche und organisatorische Rahmenbedingungen durchdrungen werden.
3	**Forms of Teaching and Courses** seminar/lecture 4 SWS: Environmental Administration and –Governance Dr. Timothy Moss Environmental Law Prof. Dr. Jutta Stender-Vorwachs LL.M. (Virginia) und Ass. iur. Natalia Theissen
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Seminar assignment and short assignment Oral presentation and elaboration

6	**Literature** • Deutscher Taschenbuch Verlag (Hrsg.): Umweltrecht. München: dtv. (aktuelle Auflage) • Deutscher Taschenbuch Verlag (Hrsg.): Baugesetzbuch. München: dtv. (aktuelle Auflage) • Prittwitz, V. von (2000): Institutionelle Arrangements in der Umweltpolitik. Zukunftsfähigkeit durch innovative Verfahrenskombinationen? Opladen: Leske + Budrich. • Weitere spezifische Literature wird aktuell angegeben**Lehrbücher** • Battis, Ulrich: Öffentliches Baurecht und Raumordnungsrecht, 7. Auflage 2017 • Brohm, Winfried: Öffentliches Baurecht, 4. Auflage 2014 **Kommentare** • Battis / Krautzberger / Löhr: Baugesetzbuch (BauGB) Kommentar, 13. Auflage 2016. • Spannowsky / Uechtritz: Beck`scher Online-Kommentar Baugesetzbuch, 42. Edition, Stand: 01.08.2018. **Monographien/Kommentare:** • Stollmann, F./Beaucamp, G. (11. Auflage 2017), Öffentliches Baurecht , C.H. Beck • Storm , P.-C. (November 2015): Umweltrecht: Einführung , Erich Schmidt Verlag GmbH & Co • Erbguth, W; Schlacke, S. (6. Auflage 2016) Umweltrecht, Nomos • Landmann/Rohmer (85. EL, Dezember 2017), § 18 BNatSchG **Aufsätze**: • Hyckel, Jonas, Die materiell-rechtliche Transformation des Umweltschutzes in der Bauleitplanung, ZfBR 2016, 335 **Zu Umweltverwaltung und –Governance**: • Bauer, M. W., Bogumil, J., Knill, C., Ebinger, F., Krapf, S., Reißig, K. (2006): Modernisierung der Verwaltungsorganisation und von Verwaltungsverfahren im Umweltschutz. Endbericht. Universität Konstanz, Ruhr-Universität Bochum. • Benz, A. (2005): Governance in Mehrebenensystemen. In: Schuppert, G.F. (Hrsg.): Governance-Forschung. Vergewisserung über Stand und Entwicklungslinien. Baden-Baden: Nomos, S. 95-120. • Meuleman, L., Niestroy, I., Hey, C. (Hrsg.): Environmental Governance in Europe. The Hague: Lemma. • Newig, J., Fritsch, O. (2009): Environmental Governance: Participatory, Multi-Level – And Effective? Environmental Policy and Governance 19 (3), S. 197-214. • Prittwitz, V. von (2000): Institutionelle Arrangements in der Umweltpolitik. Zukunftsfähigkeit durch innovative Verfahrenskombinationen? Opladen: Leske + Budrich. • Sachverständigenrat für Umweltfragen (SRU) (2007): Umweltverwaltungen unter Reformdruck. Herausforderungen, Strategien, Perspektiven. Sondergutachten.
7	**Weitere Angaben** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Christina von Haaren

<table>
<tr><td colspan="2">Module Title
Landscape Perception, Recreation and Tourism (Landschaftswahrnehmung, Erholung und Tourismus)</td><td>Module Code</td></tr>
<tr><td colspan="2">Degree Course
M. Sc. Environmental Planning and Territorial Development</td><td>Module Type
Required elective</td></tr>
<tr><td>Credit Points
5</td><td>Frequency of Occurrence
usually in the summer semester</td><td>Language
German</td></tr>
<tr><td>Special Skills Area</td><td>Recommended Semester of Study
from 2nd Semester</td><td>Module Duration
1 Semester</td></tr>
<tr><td colspan="3">Student Workload</td></tr>
<tr><td>Total Nr of Hours
150 Hrs</td><td>Contact Hours
60 Hrs lecture</td><td>Self Study Hours / Examination
90 Hrs Preparation and Re-viewing of lecture, exercise and field trips</td></tr>
<tr><td colspan="3">Further Use of Module
M. Sc. Landschaftsarchitektur, M. Sc. Landschaftswissenschaften</td></tr>
<tr><td>1</td><td colspan="2">Qualification Goals

Students should be able to recognise a "beautiful landscape" in its singularity and create a value for recreation, environmental education and tourism through planning.
They should acquire scientifically sound knowledge of landscape perception, recreation and environmental education in the landscape as well as tourism. This includes the ability to analyse, methodological competence with regard to recording and targeted evaluation, conceptual competence and the ability to develop implementable measures.

After having successfully completed the module, students are able to:
• to address, define and evaluate different landscapes as spaces for perception, identification, recreation and experience (experimenting with different methods)
• To understand the basic principles of the tourist industry and the interrelationships within this market (with regard to landscape-related recreation) and to apply them in the development of tourist products,
• To develop tourist products in and for "beautiful landscapes".</td></tr>
<tr><td>2</td><td colspan="2">Module Contents
Professional content:
What must "beautiful landscape" be like in order to create a touristic value? Ideally, nature conservation and landscape management objectives can be reconciled with the interests of those seeking recreation and tourism destinations. In this course these connections will be examined.
Landscape perception, Recreation and Enviraonmental Education:
• Perception of landscape and its complexity
• Requirements for landscape experience, accessibility
• Methods for recording and evaluating potential for experience/adventure and recreation,
• Historical landscape analysis, (historical) cultural landscapes and their elements as well as methods for recording and documenting them
• Legal basis for the protection of the landscape as an area of experience
• Landscape, health and spirituality. Recreational health , effects of impairments including noise and (night) light
• recording and evaluation of landscape as an area for recreation and experience/adventure
• Selected environmental education models and their didactics.
Tourism:
Introduction: Development and significance of tourism
• Tourist economies: supply, demand, trends
• Tourism as contribution to sustainable regional development
• Tourism – planning and concepts
• Generation of touristic offers
• Environmental Management within tourism</td></tr>
</table>

	Generic contents**:** • Creative thinking • communication • Development of feasible project ideas • Comprehensible presentation in words and pictures, orally and in writing
3	**Forms of Teaching and Courses** Seminar 4 SWS
4a	**Participation Requirements** none
4b	**Recommendations** Basic knowledge of nature conservation, landscape and spatial planning as well as planning-related sociology from the Bachelor's programme.
5	**Requirements for Allocation of Credit Points** In order to fully achieve the competence goals, it is neccessary to partake in the seminar sessions, the excursions and the sessions with the experts in the field. Furthermore, it is a pre-requisite to work independently on a subtask, both individually and as a group.
	Course Achievements none
	Examination Requirements Exercises and written elaboration, presentation and final discussion (seminar assignment)
6	**Literature:** Topical and area-related literature will be indicated during the course. For standard works see below: • Eder, R. & Arnberger, A., 2007: Lehrpfade - Natur und Kultur auf dem Weg. Grüne Reihe des Lebensministeriums Bd. 18, Wien: Böhlau Verlag • Freyer, W., 2005: Tourismus. Einführung in die Fremdenverkehrsökonomie. 568 S., München: Oldenbourg. • Nohl, W., 2001: Landschaftsplanung. Ästhetische und rekreative Aspekte. 248 S., Berlin: Patzer. • Nohl, W., 2015: Landschaftsästhetik heute. Auf dem Wege zu einer Landschaftsästhetik des guten Lebens. München: oekom Verlag. 315 S. • Wöbse, H., 2003: Landschaftsästhetik. 288 S., Stuttgart: Verlag Eugen Ulmer. • Wolf, A. & Appel-Kummer, E. (Hrsg.), 2009: Naherholung in Stadt und Land. Norderstedt: Book on Demand GmbH.
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences, Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Dr. Roswitha Kirsch-Stracke

Module Title Faunistic and ecological methods in landscape planning *(Faunistisch-tierökologische Methoden in der Landschaftsplanung)*		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5 (bzw. 6 im MSc Landschaftswissenschaften)	**Frequency of Occurrence** summer semester	**Language** Deutsch
Special Skills Area *(laut Regelungen der Prüfungsordnung)*	**Recommended Semester of Study** from 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 56 Hrs	Self Study Hours / Examination 94 hrs
Further Use of Module MSc Landschaftswissenschaften		

1	**Qualification Goals** After having successfully completed the module, students are able to: 1) to design and carry out research programmes adapted to the research question 2) To classify the native species of a chosen group of animal species either in the field or in the laboratory 3) To document and evaluate both methods applied and results according to scientific standards
2	**Module Contents** Planning and practical application of specialist methodological standards for recording a selected group of animal species (birds, amphibians, dragonflies, butterflies, grasshoppers), Performing a classification of species in the field and in the laboratory, Methodological standards for the evaluation and processing of the results Generic Module Contents is the integration of the research programme into applied landscape planning issues
3	**Forms of Teaching and Courses** seminar/exercise
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points** *Participation in the introductory sessions, regular participation in the mapping sessions and the preparation of a report with an account of the investigation methods and results.*
	Course Achievements*:* none
	Examination Requirements Short assignment
6	**Literature** The relevant identification literature for the respective animal species group will be distributed at the beginning of the course. Information on further literature will be made available in stud.IP at the beginning of the course. Further working materials will be posted as documents in stud.ip
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences, Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Michael Reich

Module Title Advanced surveying of flora and vegetation (*Vertiefte floristische und vegetationskundliche Erfassung)*		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** ususally in the summer semester	**Language** German
Special Skills Area	**Recommended Semester of Study** from 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 56 Hrs in parallel groups	Self Study Hours / Examination 94 Hrs
Further Use of Module M. Sc. Landschaftswissenschaften		

1	**Qualification Goals** Obtaining knowledge of and proficiency in methods for • Identification and mapping of FFH habitat types in protected areasErfassung der Flora von FFH-Lebensraumtypen • Recording and assessment of the conservation status of FFH habitat typeszielgerichteten Aufbereitung von dabei gewonnenen Ergebnissen, • Establishing protective and development measures in FFH habitat types • Development of monitoring concepts in FFH habitat types Since the methods taught in the module are regularly applied in practice to record the status and changes of FFH protected areas, to elaborate protection and development measures and to create a targeted monitoring of the development of protected areas, this course is intended to give students the opportunity to qualify for this field of activity.
2	**Module Contents** • Identification and mapping of FFH habitat types in a selected protected area • Recording of plant species of the annexes of the FFH regulation of the occurring FFH habitat types, • Recording and assessment of the conservation status of the existing FFH habitat type • Development of measures to maintain and improve the conservation status of the existing FFH habitat types • Presentation of the development objectives and measures for the recorded populations of the FFH habitat types or the populations that can be developed into FFH habitat types • Development of a monitoring concept for the existing FFH habitat types and those to be developed
3	**Forms of Teaching and Courses** seminar/exercise
4a	**Participation Requirements** None
4b	**Recommendations** Skills in the use of classification tools (e.g. Rothmaler), knowledge of plant species
5	**Requirements for Allocation of Credit Points** Passing the short assignment
	Course Achievements none

	Examination Requirements Short assignment
6	**Literature** • BURCKHARDT, S. (2016): Leitfaden zur Maßnahmenplanung für NATURA 2000-Gebiete in Niedersachsen. Informationsdienst Naturschutz Niedersachsen, Heft 2/16. NLWKN, Hannover. 131 S. • ROTHMALER, W. (2016): Exkursionsflora von Deutschland, Gefäßpflanzen Grundband. Her-ausgeber E. J. Jäger. 21. Auflage. Springer, Spektrum Akademischer Verlag, München. 930 S. • ROTHMALER, W. (2017): Exkursionsflora von Deutschland, Band 3: Gefäßpflanzen, Atlasband. Herausgeber E. J. Jäger, F. Müller, C. M. Ritz, E. Welk, K. Wesche, K. (Hrsg.). 13. Auflage. Elsevier, Spektrum Akademischer Verlag, München. 814 S. • SSYMANK, A., HAUKE, U., RÜCKRIEM, C., SCHRÖDER, E. & MESSER, D. (1998): Das europäische Schutzgebietssystem NATURA 2000. BfN-Handbuch zur Umsetzung der Fauna-Flora-Habitat-Richtlinie und der Vogelschutz-Richtlinie. Schr.R. f. Landschaftspfl. u. Natursch. 53. Bundesamt für Naturschutz, Bonn. 560 S. • V. DRACHENFELS, O. (2012): Einstufungen der Biotoptypen in Niedersachsen. Regenerationsfähigkeit, Wertstufen, Grundwasserabhängigkeit, Nährstoffempfindlichkeit, Gefährdung. Informationsdienst Naturschutz Niedersachsen, Heft 1/12. NLWKN, Hannover. 60 S. • V. DRACHENFELS, O. (2014): Hinweise zur Definition und Kartierung der Lebensraumtypen von Anh. I der FFH-Richtlinie in Niedersachsen. NLWKN, Hannover. 80 S. • V. DRACHENFELS, O. (2016): Kartierschlüssel für Biotoptypen in Niedersachsen unter besonderer Berücksichtigung der gesetzlich geschützten Biotope sowie der Lebensraumtypen von Anhang I der FFH-Richtlinie. NLWKN, Hannover. 326 S.
7	**Weitere Angaben** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Rüdiger Prasse

Module Title Environmental Assessment *(Umweltprüfung)*		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** ususally in the summer semester	**Language** German
Special Skills Area	**Recommended Semester of Study** from 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs	Self Study Hours / Examination 90 Hrs
Further Use of Module		

1	**Qualification Goals** After having successfully completed the module, students are able to: • distinguish objectives from different environmental assessments and explain the relationship between the instruments and their coordination and stratification • understand and apply legal bases, especially admission requirements, and working aids, • to structure the course of an administrative procedure with environmental assessment, to process the protected goods systematically and analytically and to evaluate and aggregate the results in planning terms, • to apply planning methods while integrating findings from a variety of disciplines.
2	**Module Contents** For the most part, the seminar is designed as a strategy game in which the students each take on the role of an actor in a real-life environmental audit. • Purpose of environmental assessments (EIA, SEA, UP in urban land use planning) • Legislation and procedures • Preparation of the scoping documents and proposal conference, information on the scope of the study • Space analysis • forecast of the impact and comparison of variants • verification of plausibility and completeness of the documents • appointment for discussion • Summary report, evaluation, consideration, information to the public Furthermore, possibilities for the integration of • FFH compatibility and species protection test • landscape conservation planning will be discussed and exemplary EIA and SEA approaches in other countries will be presented.
3	**Forms of Teaching and Courses** seminar with simulation game
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Oral examination (30 min)
6	**Literature**

7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences, Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Dr. Frank Scholles

Module Title Quantitative Planning Methods		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** required elective
Credit Points 5	**Frequency of Occurrence** Usually in the winter semester	**Language** German
Special Skills Area	**Recommended Semester of Study** from 3rd Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs Seminar	Self Study Hours / Examination 90 Hrs
Further Use of Module M. Sc. Landschaftsarchitektur, M. Sc. Landschaftswissenschaften		

1	**Qualification Goals** The aim of the course is to familiarize students with the models, to present and consolidate underlying connections between policy requirements and their effects on the environment and to elaborate the opportunities and limitations of such decision support systems.
2	**Module Contents** The seminar offers the opportunity to become familiar with the application of model approaches in planning by working with models.. For this purpose, different models are offered which allow specific questions to be dealt with. These are the models CLUE-s and MANUELA - Module Water. CLUE-s is a land use change model with which expected changes in land use under scenario conditions can be calculated and visualised. By employing the water module of the MANUELA consultancy software, the adaptation of agricultural enterprises to climate changes and the associated change in irrigation regimes can be modelled.
3	**Forms of Teaching and Courses** Seminar/exercise
4a	**Participation Requirements** Recommended: Implementation in environmental planning
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Seminar assignment
6	**Literature**
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Dr. Sylvia Herrmann

Module Title Planning Theory		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Choice module
Credit Points 5	**Frequency of Occurrence** winter semester	**Language** English
Special Skills Area	**Recommended Semester of Study** from 1st semester	**Module Duration** 1 semester
Student Workload		
Total Nr of Hours 150 hours	Contact Hours 28 hours seminar	Self Study Hours / Examination 122 hours preparation and follow-up of seminar as well as elaboration
Further Use of Module Leibniz Forschungszentrum TRUST, Master Architektur, Master Wirtschaftsgeographie		

1	**Qualification Goals** Deeper understanding of theories in the context of spatial planning as reflections of planning practices and of "theories of planning" After successfully finishing the module, students will be able 1) to recognize the gap between theory and practice 2) to understand and analyse various questions of planning theory (theory of planning as well as theory in planning) 3) to differentiate between cooperative and communicative approaches and the roles and self-understandings of planners 4) to develop skills for the independent further development of the learned knowledge
2	**Module Contents** Basic knowledge of theories in the context of spatial planning and "theories of planning" Fachliche Module Contentssind: • Theories in the context of spatial planning as reflections of planning practices • "Theories of Planning" • Cooperative and communicative approaches • Roles and self-understandings of planners • Various, current planning theoretical questions
3	**Forms of Teaching and Courses** Seminar (Prof. Dr. Rainer Danielzyk, external lecturers) 4 SWS
4a	**Participation Requirements** none
4b	**Recommendations** Basic knowledge of planning
5	**Requirements for Allocation of Credit Points**
	Course Achievements*:* presentation
	Examination Requirements Essay or oral assessment (30 min)
6	**Literature**
7	**Further Information**
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Rainer Danielzyk

Module Title Computer Science in Planning		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** ususally in the summer semester	**Language** English
Special Skills Area	**Recommended Semester of Study** from 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs	Self Study Hours / Examination 90 Hrs
Further Use of Module		

1	**Qualification Goals** Independent use of GIS software to solve even complex tasks. After successful completion of the module, students are able to, • manage geodata in databases • use advanced vector methods • perform analyses with raster methods • create models to solve complex tasks • develop customizations/automations using scripting languages • design map layout • carry out landscape analyses • use different GIS software
2	**Module Contents** Das Modul vermittelt vertiefte und anwendungsorientierte Kenntnisse im Umgang mit Geoinformationssystemen. Fachliche Module Contentssind: • Allgemeine Einführung in Geoinformationssysteme • Einführung in ArcGIS Desktop Advanced • Koordinatensysteme und Projektionen • Datentypen, Datenformate und Datenmanagement • Datenbeschaffung, WebServices • Vektormethoden • Rastermethoden • ModelBuilder, Python • Kartenlayout, Metadaten • Landschaftsanalyse • 3 D • Fallbeispiele aus Forschungsprojekten • Überblick über Open Source GIS Software
3	**Forms of Teaching and Courses** Vorlesung/experimentelle Übung
4a	**Participation Requirements** GIS Grundkenntnisse
4b	**Recommendations** none

5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Short assignment
6	**Literature** • Ashdown, M. & Schaller, J., 1990: Geographische Informationssysteme und ihre Anwendung in MAB-Projekten, Ökosystemforschung und Umweltbeobachtung. 250 S., Bonn (MAB-Mitteilungen, 34). • Bill, R., 2010: Grundlagen der Geo-Informationssysteme. 5. Aufl., 454 S., Heidelberg: Wichmann. • Burrough, P.A.; McDonnell, R.A. & Lloyd, C.D., 2015: Principles of Geographical Information Systems. 333 pp., Oxford: Oxford Univ. Press. • Fischer-Stabel, P. (Hrsg.), 2005: Umweltinformationssysteme. 290 S., Heidelberg: Wichmann. • Fürst, D., Roggendorf, W., Scholles, F. & Stahl, R., 1996: Umweltinformationssysteme. Problemlösungskapazitäten für den vorsorgenden Umweltschutz und politische Funktionen. 258 S., Hannover (Beiträge zur räumlichen Planung 46). • Harder, C.; Ormsby, T. & Balström, T., 2011: Understanding GIS. An ArcGIS Project Workbook. Redlands: ESRI Press.
7	**Further Information** None
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Dipl.-Forstwirt Malte Weller

Module Title Nature Conservation and Environmental Economy (e.g. PES)		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** winter semester	**Language** English
Special Skills Area	**Recommended Semester of Study** 1st or 3rd semester	**Module Duration** 1 semester
Student Workload		
Total Nr of Hours 150 hrs	Contact Hours 48 hrs seminar 8 hrs field trip	Self Study Hours / Examination 94 hrs
Further Use of Module M. Sc. Landschaftsarchitektur, M. Sc. Wirtschaftsgeographie		

1	**Qualification Goals** In the competence areas knowledge and understanding as well as development, students learn to cope with current and future challenges for urban and regional planning, e.g. globalisation, European integration, climate change, regional and local competition for inhabitants and enterprises or demographic change and declining scope of public budgets) and to react with planning options. Urban and regional planning prepare proposals and implement action to improve the status-quo. In the competence area analysis and method, students will know appropriate planning methods, procedures and instruments to solve the above mentioned challenges. Students will compare strategic and communicative planning approaches and in different European countries, based on different planning cultures.
2	**Module Contents** 1. economic explanation of environmental problems The starting point is the economic explanation of environmental problems. To this end, essential concepts such as external effects and basic assumptions of the economy such as rational choice and homo economicus are presented and critically discussed. 2. economic solutions for environmental problems Based on Part 1, environmental economic instruments are introduced in comparison to other instruments. The focus is based on payments of ecosystem services (PES). The opportunities and threats of various economic incentive instruments as well as national and international examples are discussed. Instruments that are currently particularly relevant in connection with land use management, such as agri-environmental programmes, and compensation payments in Natura 2000 areas are presented in detail. 3. economic valuation of environmental goods The third part provides an introduction to the economic valuation of ecosystem serivices and their practical significance in the context of cost-benefit analyses and policy advice. The students will be given an overview of the current methods of monetarisation of environmental goods.

3	**Forms of Teaching and Courses** Seminar, 4 SWS (Prof. Dr. Bettina Matzdorf and team)
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements: Various types
	Examination Requirements Essay and oral assessment 30 min
6	**Literature**
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. B. Matzdorf

Module Title Ecosystem services and human-environmental relations		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 6	**Frequency of Occurrence** annually	**Language** English
Special Skills Area	**Recommended Semester of Study**	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 180 Hrs	Contact Hours 60 Hrs	Self Study Hours / Examination 120 Hrs
Further Use of Module M. Sc. Landschaftswissenschaften.		

1	**Qualification Goals** • Combination of theoretical and practical works to achieve a detailed comprehension of complex and human-environmental systems (in general) and ecosystem services (specifically) • Information acquisition and theme-specific analyses • Practical applications oft he theoretical backgrounds in case study-specific group works • Combination of ecosystem services maps with GIS
2	**Module Contents** • Comprehension and analysis of complex human-environmental systems with focus on ecosystem services. • Transdiciplinary analysis of cause and effect chains in human-environmental systems on different spato-temporal scales • Selected methods for the quantification, modeling, analysis and mapping of ecosystems services • Spatio-temporal analyses and assessment of land use change and ecosystem services supply and demand • Development of integrative future scenarios • Practical case study work in groups to map and assess selected ecosystem services with GIS; day excursion to a case study area
3	**Forms of Teaching and Courses** Exercise and/or seminar (4 SWS)
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements Active participation in group exercises (including results presentation), regular attendance, active participation and contributions in the seminar
	Examination Requirements Seminar project or written presentation or oral presentation
6	**Literature** • Burkhard, B., Maes, J. (Eds.) (2017): Mapping Ecosystem Services. Pensoft Publishers. Open Access: https://ab.pensoft.net/articles.php?id=12837 • Martin, G.G. (2001): Human Ecology – Basic Concepts for Sustainable Development. Earthscan Publications Futher specific Literaturee that has to be collected individually for the respective topics

7	**Further Information** **none**
8	**Organisational Unit** Faculty of Natural Sciences Institute of Physical Geography and Landscape Ecology **https://www.phygeo.uni-hannover.de**
9	**Person responsible for module** Prof. Dr. Benjamin Burkhard

Module Title Hydrology and Water Resources Management I		**Module Code**
Degree Course **M. Sc.** Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 6	**Frequency of Occurrence** ususally in the winter semester	**Language** English
Special Skills Area	**Recommended Semester of Study**	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 180 Hrs	Contact Hours 60 Hrs	Self Study Hours / Examination 120 Hrs
Further Use of Module		

1	**Qualification Goals** This modul introduces the basic understanding of hydrological processes, and the application for planning and designing human activities in the management of water resources. Upon completion of the module, students are able to: • understand the water balance components precipitation, evapotranspiration and runoff; • apply different concepts for the calculation of runoff from rainfall; • apply hydrological methods in water resources and environmental planning; • design reservoirs and other structures e.g. for irrigation; • evaluate options for the spatial and temporal redistribution of water resources including the technical feasibility and economic consequences; • analyse the risk of extreme events in hydrology and water resources management.
2	**Module Contents** 1. Hydrology I: • Cycle of water, energy and matter, catchment • Precipitation: genesis, measurement, calculation • Evaporation: types, measurement, calculation • Stage and discharge: measurement, analysis • Floods and droughts • Subsurface water: soil water, groundwater • Rainfall runoff relationships: runoff generation, runoff transformation, flood routing 2. Water Resources Management I: • Reservoir design, retention • Flood risk management • Irrigation and drainage • Economic project assessment*:*
3	**Forms of Teaching and Courses** 2 Vorlesungen, 2 Übungen
4a	**Participation Requirements** none
4b	**Recommendations** none

5	**Requirements for Allocation of Credit Points**
	Course Achievements: none
	Examination Requirements Written examination
6	**Literature** • Dyck, S., Peschke, G., 1995: Grundlagen der Hydrologie. Verlag für Bauwesen, Berlin. • Maniak, U., 2010: Hydrologie und Wasserwirtschaft: Eine Einführung für Ingenieure. 6. Aufl., Springer.
7	**Further Information** **none**
8	**Organisational Unit** Fakultät für Bauingenieurwesen und Geodäsie Institut für Hydrologie und Wasserwirtschaft, http://www.iww.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Uwe Haberlandt

Module Title Water Resources Systems Analysis		**Module Code**
Degree Course **M. Sc.** Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 6	**Frequency of Occurrence** **winter semester**	**Language** German/English
Special Skills Area	**Recommended Semester of Study**	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 180 Hrs	Contact Hours 60 Hrs	Self Study Hours / Examination 120 Hrs
Further Use of Module		

1	**Qualification Goals** The module deals with advanced aspects of water resources management. Ecological, climatological, socio-economic and policy aspects are regarded as environmental conditions for water resources management. A seminar is included, where students present and discuss their homework about integrated water resources management problems in developing countries. Furthermore, optimization is introduced as systems analytic technique. Upon completion of the module, students are able to • understand the concept of integrative and sustainable approaches in water resources management; • perform an interdisciplinary analysis of international projects, with special focus on developing countries; • evaluate and optimize water resources problems with optimization techniques; • compare alternative projects according to multi criteria and derive decision recommendations.
2	**Module Contents** • IWRM definition and concepts • Seminar: international projects and policies seen from an integrated perspective • Linear and non-Linear Optimization, multi-criteria decision support • External societal frame for WRM: capacity development, participation - WRM problems of arid and semi-arid regions
3	**Forms of Teaching and Courses** 2 Vorlesungen, 2 Übungen
4a	**Participation Requirements** none
4b	**Recommendations** „Grundlagen der Hydrologie und Wasserwirtschaft" (D) "Hydrology and Water Resources Management I" (E)
5	**Requirements for Allocation of Credit Points**
	Course Achievements*:* none
	Examination Requirements ZP (PR 40% + Ü 20% + LÜ 40%) / ungraded in-class assignment
6	**Literature** Loucks, D.P. and van Beek, E. (Editors), 2017. Water Resources Systems Planning and Management. Springer International Publishing (open access).

7	**Further Information** **none**
8	**Organisational Unit** Fakultät für Bauingenieurwesen und Geodäsie Institut für Hydrologie und Wasserwirtschaft http://www.iww.uni-hannover.de/
9	**Person responsible for module** Dr. Jörg Dietrich

Major Territorial Development (Regionalplanung)

Module Title Current Issues in Territorial Development II		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Choice module
Credit Points 5	**Frequency of Occurrence** summer semester	**Language** English
Special Skills Area	**Recommended Semester of Study** From 1st semester	**Module Duration** 1 semester
Student Workload		
Total Nr of Hours 150 hours	Contact Hours 28 hours seminar	Self Study Hours / Examination 122 hours preparation and follow-up of seminar as well as elaboration
Further Use of Module Leibniz Forschungszentrum TRUST, M. Sc. Landschaftsarchitektur, M.Sc. Architektur, M.A. Wirtschaftsgeographie		

1	**Qualification Goals** In-depth, practice-oriented understanding of current topics and issues in territorial development After successfully finishing the module, students will be able • to understand selected current issues of territorial development • to analyse complex interrelations and interactions of the current topics of the module, • to develop an awareness of (external) influences as well as skills for independent further development of the learned knowledge
2	**Module Contents** Die folgenden Inhalte sollen vermittelt warden: Analysis and assessment of current issues and questions in territorial development Fachliche Module Contentssind: Changing, emergent topics and current questions in territorial development, e.g. creative cities, resilient city-regions, planning cultures, participation in planning for sustainable development – the subject will be determined by the teachers every year
3	**Forms of Teaching and Courses** seminar (Prof. Dr. Rainer Danielzyk, Dr. Frank Scholles, other section members) 4 SWS
4a	**Participation Requirements** none
4b	**Recommendations** Basic knowledge of environmental planning and regional development
5	**Requirements for Allocation of Credit Points**
	Course Achievements: Presentation
	Examination Requirements Essay or oral assessment 20 min
6	**Literature** Recently published scientific articles or proceedings on the respective main topic of the seminar
7	**Further Information** None
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Rainer Danielzyk

Module Title Introduction to EU Law			**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development			**Module Type** Required elective
Credit Points 2	**Frequency of Occurrence**		**Language** English
Special Skills Area	**Recommended Semester of Study**		**Module Duration**
Student Workload			
Total Nr of Hours	Contact Hours 28 Hrs		Self Study Hours / Examination
Further Use of Module			

1	**Qualification Goals** Es geht insbes. darum, dass die Teilnehmer Basiswissen hinsichtlich des EU-Rechts (im in der Modulbeschreibung aufgezeigten Umfang) erlangen und dieses abrufen können.
2	**Module Contents** The lecture schedule/syllabus contains regularly the elements • Welcoming / Semester Plan / Historical Overview • EU Institutions Analysis (I-III) • Fundamental Rights Protection in the EU • Fundamental Freedoms of the EU • Elements of EU Competition Law • Elements of EU State Aid Law • Elements of EU International Private Law • Elements of EU Civil Procedure Law • Elements of EU Criminal Law • 2 Repetitions right before the final exam (no further assessments are scheduled besides that). The "Introduction to EU Law" provides the participants with basic information regarding a relevant historical overview (containing the developments from the Rome Treaties up to the Lisbon Treaty), the EU Institutions (mainly the ones being mentioned in Art. 13 TEU), the Fundamental Rights Protection in the EU (largely based on the ECJ decisions and the EU Charter of Fundamental Rights) and the Fundamental Freedoms of the EU (of the utmost importance for an efficient Internal Market); furthermore, in order to strengthen the participants knowledge about the Internal Market, elements of EU Competition and State Aid Law are dealt with; in order to conclude the general introduction, elements of EU International Private Law (mainly the "Rome"-Regulations), EU Civil Procedure Law and EU Criminal Law are presented.
3	**Forms of Teaching and Courses** Vorlesung 1 SWS
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Written examination
6	**Literature** Further reading suggestions are given at the mentioned "Welcoming" edition; the participants receive a lecture Reader for the semester and (on a weekly basis) Handouts, dealing with the abovementioned topics.
7	**Weitere Angaben** none
8	**Organisational Unit** Juristische Fakultät
9	**Person responsible for module** Dr. jur. D. Parashu

Module Title Project Planning and Evaluation		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5.	**Frequency of Occurrence** winter semester	**Language** Englisch
Special Skills Area	**Recommended Semester of Study**	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 28 Hrs	Self Study Hours / Examination 122 Hrs
Further Use of Module Bachelor Wirtschaftswissenschaft, Master Wirtschaftswissenschaft, Master Wirtschaftsingenieur		

1	**Qualification Goals** Die Teilnehmer sind vertraut mit den grundlegenden Ansätzen, die Entwicklungsorganisationen bei der Planung und Evaluierung von Entwicklungsprojekten anwenden. Sie können Projekte von Programmen und Strategien abgrenzen. Sie sind in der Lage, Kosten und Nutzen von Entwicklungsprojekten zu identifizieren, quantifizieren und zu bewerten. Sie kennen die Unterschiede zwischen privatwirtschaftlicher und gesamtwirtschaftlicher Analyse. Die Studierenden sind in der Lage, die Methode der Kosten-Nutzen-Analyse für die Planung und Evaluierung von Projekten in Entwicklungsländern anzuwenden. Sie können Investitionskriterien berechnen und interpretieren sowie deren Stärken und Schwächen beurteilen. Sie kennen die theoretischen Grundlagen, auf denen die Kosten-Nutzen-Analyse aufbaut, sind sich aber auch der praktischen Probleme bei der Anwendung in Entwicklungsländern bewusst.
2	**Module Contents** Principles and Examples of Cost Benefit Analyses of Development Projects; Examples from Agriculture, Environment and Health
3	**Forms of Teaching and Courses** Vorlesung
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Written examination (60 Min.)
6	**Literature** • Brent, R. (1998) Cost Benefit analysis for Development Countries, Cheletenahm. • Curry S. and J. Weiss (1993) Project Analysis in Developing Countries, Macmillia. • Gittinger, J. P. (1982) Economic analysis of Agricultural projects. • Little, A. and J. A. Mireless (1980) Project Appraisal and Planning for Developing Countries. • Fleischer, G. and H. Waibel (1994) Ansätze zur Erweiterung der Kosten Nutzen Analyse am Beispiel der • Bewässerungslandwirtschaft, Köln. • Project Evaluation Reports of the World Bank, Asian Development Bank und der Gesellschaft für Technische Zusammenarbeit
7	**Further Information** none
8	**Organisational Unit** Wirtschaftswissenschaftliche Fakultät
9	**Person responsible for module** Prof. Dr. Waibel

Module Title Umweltprüfung *(Environmental Assessment)*		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** ususally in the summer semester	**Language** Deutsch
Special Skills Area	**Recommended Semester of Study** from 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs	Self Study Hours / Examination 90 Hrs
Further Use of Module		

1	**Qualification Goals** Nach erfolgreichem Abschluss des Moduls sind Studierende in der Lage, • Ziele von verschiedenen Umweltprüfungen zu unterscheiden und das Verhältnis der Instrumente zueinander sowie ihre Koordination und Abschichtung zu erklären, • Rechtsgrundlagen, insbes. Zulassungsvoraussetzungen, und Arbeitshilfen zu verstehen und anzuwenden, • den Ablauf eines Verwaltungsverfahrens mit Umweltprüfung zu strukturieren, • die Schutzgüter systematisch-analytisch abzuarbeiten und die Ergebnisse planerisch zu bewerten und zu aggregieren, • Planungsmethoden unter Integration von Erkenntnissen verschiedener Disziplinen anzuwenden
2	**Module Contents** Das Seminar wird über weite Strecken als Planspiel gestaltet, in dem die Studierenden jeweils die Rolle eines Akteurs in einer real gelaufenen Umweltprüfung einnehmen. • Zweck der Umweltprüfungen (UVP, SUP, UP in der Bauleitplanung) • Recht und Verfahren • Erstellen der Scoping-Unterlagen und Antragskonferenz, Unterrichtung über den Untersuchungsrahmen • Raumanalyse • Auswirkungsprognose und Variantenvergleich • Plausibilitäts- und Vollständigkeitsprüfung der Unterlagen • Erörterungstermin • Zusammenfassende Darstellung, Bewertung, Berücksichtigung, Information der Öffentlichkeit Darüber hinaus werden Möglichkeiten zur Integration von • FFH-Verträglichkeits- und Artenschutzprüfung • landschaftspflegerischer Begleitplanung behandelt und beispielhafte UVP- und SUP-Ansätze im Ausland vorgestellt.
3	**Forms of Teaching and Courses** Seminar mit Planspiel
4a	**Participation Requirements** none
4b	**Recommendations** **none**

5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Oral examination (30 min)
6	**Literature**
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Dr. Frank Scholles

Module Title Quantitative Planning Methods		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** ususally in the winter semester	**Language** Deutsch
Special Skills Area	**Recommended Semester of Study** from 3rd Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs Seminar	Self Study Hours / Examination 90 Hrs
Further Use of Module M. Sc. Landschaftsarchitektur, M. Sc. Landschaftswissenschaften		

1	**Qualification Goals** Ziel der Veranstaltung ist es, die Studierenden mit den Modellen vertraut zu machen, grundlegende Zusammenhänge zwischen Politikvorgaben und den Auswirkungen auf die Umwelt vorzustellen und zu vertiefen sowie die Chancen und Grenzen derartiger Entscheidungsunterstützungssysteme zu erarbeiten.
2	**Module Contents** Das Seminar bietet die Möglichkeit, sich durch die Arbeit mit Modellen mit der Anwendung von Modellansätzen in der Planung vertraut zu machen. Dazu werden unterschiedliche Modelle angeboten, mit denen jeweils spezifische Fragestellungen bearbeitet werden können. Dabei handelt es sich um die Modelle CLUE-s und MANUELA – Modul Wasser. CLUE-s ist ein Landnutzungsänderungsmodell mit dem zu erwartende Änderungen der Landnutzung unter Szenariobedingungen berechnet und visualisiert werden können. Mit dem Wassermodul der Beratungssoftware MANUELA kann die Anpassung von Landwirtschaftsbetrieben an den Klimawandel und die damit verbundene Änderung des Bewässerungsregimes modellhaft durchgeführt werden.
3	**Forms of Teaching and Courses** Seminar
4a	**Participation Requirements** Implementation in environmental planning
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Seminar assignment
6	**Literature**
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Dr. Sylvia Herrmann

Module Title Planning Theory		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** winter semester	**Language** english
Special Skills Area	**Recommended Semester of Study** from 1st semester	**Module Duration** 1 semester
Student Workload		
Total Nr of Hours 150 hours	Contact Hours 28 hours seminar	Self Study Hours / Examination 122 hours preparation and follow-up of seminar as well as elaboration
Further Use of Module Leibniz Forschungszentrum TRUST, Master Architektur, Master Wirtschaftsgeographie		

1	**Qualification Goals** Deeper understanding of theories in the context of spatial planning as reflections of planning practices and of "theories of planning" After successfully finishing the module, students will be able 1) to recognize the gap between theory and practice 2) to understand and analyse various questions of planning theory (theory of planning as well as theory in planning) 3) to differentiate between cooperative and communicative approaches and the roles and self-understandings of planners 4) to develop skills for the independent further development of the learned knowledge
2	**Module Contents** Basic knowledge of theories in the context of spatial planning and "theories of planning" Fachliche Module Contentssind: • Theories in the context of spatial planning as reflections of planning practices • "Theories of Planning" • Cooperative and communicative approaches • Roles and self-understandings of planners • Various, current planning theoretical questions
3	**Forms of Teaching and Courses** Seminar (Prof. Dr. Rainer Danielzyk, external lecturers) 4 SWS
4a	**Participation Requirements** none
4b	**Recommendations** Basic knowledge of planning
5	**Requirements for Allocation of Credit Points**
	Course Achievements*:* presentation
	Examination Requirements Essay or oral assessment 30 min
6	**Literature**

7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Rainer Danielzyk

Module Title Computer Science in Planning		**Module Code**
Degree Course M. Sc. Environmental Planning and Territorial Development		**Module Type** Required elective
Credit Points 5	**Frequency of Occurrence** ususally in the summer semester	**Language** English
Special Skills Area	**Recommended Semester of Study** from 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs	Self Study Hours / Examination 90 Hrs
Further Use of Module European Master in Territorial Development		

1	**Qualification Goals** Independent use of GIS software to solve even complex tasks. After successful completion of the module, students are able to, • manage geodata in databases • use advanced vector methods • perform analyses with raster methods • create models to solve complex tasks • develop customizations/automations using scripting languages • design map layouts • carry out landscape analyses • use different GIS software
2	**Module Contents** The module imparts in-depth and application-oriented knowledge in dealing with geoinformation systems. Technical contents of the module are: • General Introduction to Geoinformation Systems • Introduction to ArcGIS Desktop Advanced • Coordinate systems and projection • Data types, data formats and data management • Data acquisition, WebServices • Vector methods • Raster methods • ModelBuilder, Python • Map layout, metadata • Landscape analysis • 3 D • Case studies from research projects • Overview of Open Source GIS Software
3	**Forms of Teaching and Courses** Lectures/Experimental Exercises
4a	**Participation Requirements** Basic knowledge in GIS
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Short assignment

6	**Literature** • Ashdown, M. & Schaller, J., 1990: Geographische Informationssysteme und ihre Anwendung in MAB-Projekten, Ökosystemforschung und Umweltbeobachtung. 250 S., Bonn (MAB-Mitteilungen, 34). • Bill, R., 2010: Grundlagen der Geo-Informationssysteme. 5. Aufl., 454 S., Heidelberg: Wichmann. • Burrough, P.A.; McDonnell, R.A. & Lloyd, C.D., 2015: Principles of Geographical Information Systems. 333 pp., Oxford: Oxford Univ. Press. • Fischer-Stabel, P. (Hrsg.), 2005: Umweltinformationssysteme. 290 S., Heidelberg: Wichmann. • Fürst, D., Roggendorf, W., Scholles, F. & Stahl, R., 1996: Umweltinformationssysteme. Problemlösungskapazitäten für den vorsorgenden Umweltschutz und politische Funktionen. 258 S., Hannover (Beiträge zur räumlichen Planung 46). • Harder, C.; Ormsby, T. & Balström, T., 2011: Understanding GIS. An ArcGIS Project Workbook. Redlands: ESRI Press.
7	**Weitere Angaben** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Environmental Planning https://www.umwelt.uni-hannover.de/
9	**Person responsible for module** Dipl.-Forstwirt Malte Weller

Elective Modules

Module Title Geschichte der Landschaftsarchitektur *(History of Landscape Architecture)*		**Module Code**
Degree Course M. Sc. Landschaftsarchitektur		**Module Type** elective
Credit Points 5	**Frequency of Occurrence** winter semester	**Language** German
Special Skills Area	**Recommended Semester of Study** 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 30 Hrs Vorlesung 30 Hrs Seminar	Self Study Hours / Examination 90 Hrs preparation and follow-up of seminar and lecture, exam preparation
Further Use of Module M. Sc. Environmental Planning and Territorial Development		

1	**Qualification Goals** In der Lehrveranstaltung erfolgt eine Betrachtung ausgewählter Themenbereiche der Geschichte der Landschaftsarchitektur. Hierbei werden die im Bachelorstudium erworbenen Kenntnisse vertieft und erweitert. Durch das Modul erlangen die Studierenden • Kenntnisse in der Geschichte der Gartenkunst • Kenntnisse über Gärten der unterschiedlichen Epochen • Kenntnisse über die Entwicklung des Berufsstandes Landschaftsarchitektur und über die historische Entwicklung der Aufgabenbereiche sowie • die Fähigkeit zur Entwicklung von Forschungsfragen und zur Konzeption von Forschungsanträgen.
2	**Module Contents** Geschichte der Gartengestaltung, Schwerpunkt 19. und 20. Jahrhundert; Professionsgeschichte, Geschichte von Berufsverbänden wie Verein deutscher Gartenkünstler, Bund deutscher Landschaftsarchitekten, Geschichte von Naturschutz und Landschaftsplanung.
3	**Forms of Teaching and Courses** Vorlesung/Seminar
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements Written assignment, presentation
	Examination Requirements **Combined assessment**
6	**Literature** • Hennebo, D. & Hoffmann, A., 1963: Geschichte der deutschen Gartenkunst. Band 1-3. Hamburg • Hennebo, D. (Hrsg.), 1977-1981: Geschichte des Stadtgrüns. Band 1-5. Berlin, Hannover. • Gröning, G. & Wolschke-Bulmahn, J., 1997: Grüne Biographien. Biographisches Handbuch der Landschaftsarchitektur in Deutschland im 20. Jahrhundert. Berlin/Hannover. • Schweizer, S. & Winter, S. (Hrsg.), 2012: Gartenkunst in Deutschland. Von der Frühen Neuzeit bis zur Gegenwart. Geschichte – Themen – Perspektiven. Regensburg. Eine Literatureliste zum jeweiligen Schwerpunktthema wird zu Beginn des Semesters bereitgestellt.

7	**Weitere Angaben** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences, Institut für Landschaftsarchitektur https://www.ila.uni-hannover.de/ila.html
9	**Person responsible for module** Prof. Dr. Joachim Wolschke-Bulmahn

Module Title Entwerfen urbaner Landschaften *(Designing Urban Landscapes)*			**Module Code**
Degree Course M. Sc. Landschaftsarchitektur			**Module Type** elective
Credit Points 5	**Frequency of Occurrence** ususally in the summer semester		**Language** German (English language possible)
Special Skills Area	**Recommended Semester of Study** from 2nd Semester		**Module Duration** 1 Semester
Student Workload			
Total Nr of Hours 150 Hrs	Contact Hours 56 hrs Seminar and field trip		Self Study Hours / Examination 94 Hrs
Further Use of Module M. Sc. Environmental Planning and Territorial Development			

1	**Qualification Goals** Das Modul vermittelt vertiefte und anwendungsorientierte Kenntnisse über aktuelle theoretische und praktische Ansätze im Entwerfen urbaner Landschaften. Nach erfolgreichem Abschluss des Moduls können die Studierenden die wichtigsten Theorien und praktischen Umsetzungen für Themenfelder wie Eigenart, Ökologie, Wasserdynamik, Akteure, Mobilität, Erneuerbare Energien oder Anthropozän benennen. Sie können qualitative Urteile zum Verhältnis zwischen theoretischen Ansätzen und praktischer Umsetzung im Entwerfen urbaner Landschaften abgeben. Sie sind in der Lage, die teils miteinander konkurrierenden Zielsetzungen im Entwerfen urbaner Landschaften kritisch in Beziehung zu setzen. Im Rahmen der Ausarbeitung lernen die Studierenden, die Teilergebnisse ihrer Gruppenarbeit zu einem kohärenten Ganzen zusammenzusetzen...
2	**Module Contents** Fachliche Module Contentssind: Aktuelle theoretische und praktische Ansätze im Entwerfen urbaner Landschaften. Themenschwerpunkte sind u.a. Eigenart, Ökologie, Wasserdynamik, Akteure, Mobilität, Erneuerbare Energien oder Anthropozän - genaue Festlegungen werden in AbLanguage mit den Studierenden gemacht. Besichtigung von Praxisbeispielen auf einer oder mehrerer Exkursionen. Überfachliche Module Contentssind: Theorien gesellschaftlicher Wandelprozesse
3	**Forms of Teaching and Courses** Das Modul ist ein Seminar, in dem die Studierenden in Dreier- bis Fünfergruppen Referate zu den Themenschwerpunkten halten. Weiterhin finden je nach Themen ein oder mehrere Exkursionen statt, auf der aktuelle Praxisprojekte zu den jeweiligen Themenschwerpunkten von den Studierenden analysiert und vorgestellt werden. Der Inhalt von Referaten und Exkursionen wird in der vorlesungsfreien Zeit als Ausarbeitung aufbereitet, die das jeweilige Thema in Beziehung zu den Themen der anderen Gruppen setzt und kritisch reflektiert. Die Seminargröße liegt bei maximal 30 Studierenden..
4a	Participation Requirements none
4b	Recommendations none
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Combined assessment presentation and field exercises (ungraded), written assessment (graded)
6	**Literature (Auswahl)** • Berrizbeitia, Anita (Ed.) (2009) Michael van Valkenburgh Associates. Reconstructing Urban Landscapes. New Haven, Yale University Press

	• BMVBS (Hg.) (2011) Infrastruktur in der Landschaft. Eine baukulturelle Herausforderung. BMVBS-Online-Publikation, Nr. 15/2011 • Czechowski, Daniel et al. (Eds.) (2014) Revising Green Infrastructure. BocaRaton, CRC Press • Diedrich, Lisa (2009) Territories. Die Stadt aus der Landschaft entwickeln. Basel, Birkhäuser • Hoyer, Jacqueline et al. (2011) Water Sensitive Urban Design Berlin, Jovis • im Zeitalter des Anthropozäns. In: ILF (ed.). Landschafts- und Freiraumqualität im urbanen und periurbanen Raum. Bern: Haupt, S. 74-87 • Koolhaas, Rem (1996) „Die Stadt ohne Eigenschaften" Arch+ 132 Juni 1996: 18–27 • Küffer, Christoph (2016) Biodiversität wagen – neue Ansätze für den Naturschutz • Lichtenstein, Andrea und Flavia Alice Mameli (Hg.) (2015) Gleisdreieck / Parklife. Bielefeld, Transcript Verlag • Norberg-Schulz, Christian (1982) Genius Loci Stuttgart, Klett-Cotta: 6-21 • Orff, Kate (2016) Toward an Urban Ecology New York, The Monacelli Press • Prominski, Martin (2014) "Andscapes: Concepts of nature and culture for landscapearchitecture in the Anthropocene", Journal of Landscape Architecture 01/2014: 6-19 • Prominski, Martin und Antje Stokman, Susanne Zeller, Daniel Stimberg, Hinnerk Voermanek, Katarina Bajc (20172) Fluss.Raum.EntwerfenRiver. Space. Design Basel, Birkhäuser • Reed, Chris and Nina-Marie Lister (Eds.) (2014) Projective Ecologies. New York, Actar Publishers • Richardson, Tim (2004) Grafische Landschaften/ Martha Schwartz . Basel, Birkhäuser • Steffen, Will et al. (2018) Trajectories of the Earth System in the Anthropocene. Proceedings of the National Academy of Sciences Aug 2018, 115 (33) 8252-8259; DOI: 10.1073/pnas.1810141115 • Waldheim Charles (Ed.) (2006) The Landscape Urbanism Reader. New York, Princeton Architectural Press • WBGU - German Advisory Council on Global Change (2016) Humanity on the move: Unlocking the transformative power of cities. WBGU, Berlin
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institut für Freiraumentwicklung https://www.freiraum.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Martin Prominski

Module Title Emergent Topics in Lansdscape Architecture		**Module Code**
Degree Course Master Landschaftsarchitektur		**Module Type** elective
Credit Points 5	**Frequency of Occurrence** ususally in the winter semester	**Language** English
Special Skills Area	**Recommended Semester of Study** 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs lecture and exercises	Self Study Hours / Examination 90 Hrs preparation and follow-up of lecture and exercises
Further Use of Module M. Sc. Environmental Planning and Territorial Development		

1	**Qualification Goals** Nach erfolgreichem Abschluss des Moduls sind Studierende in der Lage • sich mit einer verzwickten, maßstabs- und sektorenübergreifenden Herausforderung mit den Mitteln der Disziplin auseinanderzusetzen • eigenständig ein komplexes, dynamisches, schwer berechenbares Raumphänomen zu recherchieren, zu verstehen und zu beschreiben • global, maßstabs- und sektorenübergreifend zu analysieren und zu synthetisieren • komplexe globale Wirkungszusammenhänge zu erkennen • die Rolle und Wirkungskraft von Landschaftsarchitektur innerhalb eines komplexen Raumgeschehens einzuschätzen • komplexe, nichtlineare Raum-Zeitzusammenhänge grafisch zu beschreiben, verbal zu präsentieren und zu diskutieren • englisch als FachLanguage schriftlich und mündlich vertieft zu verwenden
2	**Module Contents** • Auseinandersetzung in der Kleingruppe mit einem selbst gewählten komplexen Raumphänomen innerhalb eines semesterübergreifenden Rahmenthemas (ehemalige Rahmenthemen: „The Inequality of Risk" (WiSe 2017/18), „Coasts" (WiSe 2018/19)) • Vorlesungen zum jeweiligen Rahmenthema • Fachspezifischer Umgang mit verzwickten Problemen (Vorlesungen und Workshops zu Themen wie Forschung in der Landschaftsarchitektur, Mapping, Infografiken) • Präsentation und Diskussion von komplexen Raumphänomenen
3	**Forms of Teaching and Courses** Vorlesungen und Übungen (Lectures, Research Workshops, Skill Workshops) 4 SWS
4a	**Participation Requirements** none
4b	**Recommendations** Englischkenntnisse von mindestens Stufe B1 des Gemeinsamen Europäischen Rahmens für Languagen.
5	**Requirements for Allocation of Credit Points**
	Course Achievements none
	Examination Requirements Combined assessment (exercises and presentations accompanying the lectures)

6	**Literature** Rahmenthemaspezifische Literature (wechselt jedes Semester) Allgemeine Literature: • Andres Lepik in cooperation with Undine Giseke, Regine Keller, Jörg Rekittke, Antje Stokman, Christian Werthmann *(eds.) Out There. Landscape Architecture on Global Terrain*. Berlin: Hatje Cantz, 2017 • Misrach, Richard, and Kate Orff. *Petrochemical America*. Aperture, 2012. • Rittel, Horst WJ, and Melvin M. Webber. "Wicked problems." *Man-made Futures* 26.1 (1974): 272-280. • Rittel, Horst. "Planning problems are wicked problems." *Developments in design methodology* (1984): 135-144. • Werthmann, Christian, and Jessica Bridger, eds. *Metropolis Nonformal*. San Francisco: Applied Research + Design Publishing, 2015. • Werthmann, Christian. "Landschaftsarchitektur in einer geteilten Welt." In *Zukunft Stadtgrün: Nutzen und Notwendigkeit urbaner Freiräume,* edited by DGGL e.V., 102-106. München: Callwey, 2014.
7	**Weitere Angaben** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institut für Landschaftsarchitektur https://www.ila.uni-hannover.de
9	**Person responsible for module** Prof. Christian Werthmann

Module Title Aktuelle Fragen der Freiraumpolitik und Planungskommunikation – Vertiefung *(Current Issues in Open Space Policies and Communication)*		**Module Code**
Degree Course M. Sc. Landschaftsarchitektur		**Module Type** elective
Credit Points 5	**Frequency of Occurrence** ususally in the summer semester	**Language** German
Special Skills Area	**Recommended Semester of Study** from 1st Semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 Hrs	Contact Hours 60 Hrs Seminar	Self Study Hours / Examination 90 Hrs preparation and follow-up of seminars and exercises
Further Use of Module B. Sc. Landschaftsarchitektur und Umweltplanung, M. Sc. Environmental Planning and Territorial Development, Forschungsinitiative TRUST, BA Sozialwissenschaften		

1	**Qualification Goals** Nach erfolgreichem Abschluss des Moduls sind Studierende in der Lage, ... • die Relevanz aktueller Trends für das eigene Fach einzuschätzen, • Position in fachrelevanten gesellschaftspolitischen Diskussionen zu beziehen, • Lösungen und Zukunftsoptionen für freiraumpolitische Herausforderungen zu finden, • Ideen und methodische Wege für eigene Forschungsarbeiten zu dem Thema zu entwickeln.
2	**Module Contents**
3	**Forms of Teaching and Courses** Seminar und Übungen 4 SWS
4a	**Participation Requirements** none
4b	**Recommendations** none
5	**Requirements for Allocation of Credit Points**
	Course Achievements Prerequisite for the award of credit points: scheduled discussions within the group and external experts must be attended.
	Examination Requirements Seminar assignment and short assignment Prerequisite for the award of credit points: Presentation of interim and final results of the exercise including Zwischen- und Endergebnisse der Übung, including specialist research
6	**Literature** Siehe Lernmaterial in Stud.IP/ inkl. eLearning-Material
7	**Further Information** none
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences, Institut für Freiraumentwicklung https://www.freiraum.uni-hannover.de/
9	**Person responsible for module** Prof. Dr. Bettina Oppermann

Module Title Project short – Regional Building and Urban Planning		**Module Code**
Degree Course Master Environmental Planning and Territorial Development		**Module Type** elective
Credit Points 5.	**Frequency of Occurrence** every semester	**Language** English
Special Skills Area	**Recommended Semester of Study**	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150 hours	Contact Hours 42 hours	Self Study Hours / Examination 110 hours
Further Use of Module		

1 Qualification Goals

The project short aims at deepening the students' abilitites in developing urban design and planning projects with a creative focus for current and topics with international context and relevance and/or in cooperation with international university/practice partners. It integrates scientific and design approaches towards the drawing, formulation, and argumentation of urbanistic concepts.

Disciplinary and transdisciplinary aims of qualification of the project short are:

- developed competence to set up urban design projects in a practice-bound and concentrated format (workshops with preparation and postproduction phases)
- in-depth analytical and assessment competence in urban design and planning scalesand in interaction with architectural and regional dimensions,
- vertiefte analytische und bewertende Kompetenz in städtebaulichen Maßstäben und ihrer Interaktion mit baulichen und regionalen Dimensionen,
- specific urban design and planning competences in strategy and conceptualisation, methodical and content-related handling of complex spatial issues with internationalcontext/relevane,
- ability to develop and argue urban projects with suitable media and forms of representation (analogue, digital, graphic, drawing and model-building instruments),
- practical capacity of urban design and planning communication, process design, and moderation,
- ability of a critical evaluation and reflection of analytic-conceptual action,
- organizational, team and team leadership skills, integrative, interdisciplinary and cooperative work skills, communication and transfer skills.

2 Module Contents

Disciplilnary contents:

The project short focuses on the development of urban design projects in international contexts/relevance and with current topics in specific situations and in an territorial perspective. Cooperation with local or regional partners is included on a case by case basis, as are interfaces with other disciplines. Based on the application of architectural design approaches, spatial creativity is methodically developed and formulated integratively in an independent design process.

Work phases:

- Analysis of spatial and programmatic context
- Action-oriented spatial strategies in workshop formats
- Spatial formulation and visioning
- Workshop-related process orientation, reasoning and communication

Trans-disciplinary contents:

Methodical spatial analysis and concept development on current themes of the design of city and territory, with international reference and in special workshop formats.

Studio work as a learning method:

The project work with workshops, individual supervision, discussions and presentation in small groups, regular colloquia as well as the concluding presentation aim at the students' ability to independent researching, developing, communication and interaction. The block course(s) with preparation and/or follow-up require an active participation of the students, to create drawings, models, documentations, and artistic-scientific presentations.

3	**Forms of Teaching and Courses** (international) urban design project short
4a	**Participation Requirements** English B2
4b	**Recommendations** Fundamentals in architectural design and urban design
5	**Requirements for Allocation of Credit Points**
	Course Achievements ZP (combined assessment)
	Examination Requirements ZP (combined assessment)
6	**Literature** Will be suggested specifically for each semester's thematic focus.
7	**Further Information** Teaching: Prof. J. Schröder with lecturers and researchers of the Chair
8	**Organisational Unit** Faculty of Architecture and Landscape Sciences Institute of Urban Design and Planning Chair for Regional Building and Urban Planning
9	**Person responsible for module** Prof. J. Schröder

Module Title Rural development and Village Renewal		**Module Code**
Degree Course Master Environmental Planning and Territorial Development		**Module Type** Wahl
Credit Points 5.	**Frequency of Occurrence** summer semester	**Language** English
Special Skills Area	**Recommended Semester of Study** from 2nd semester	**Module Duration** 1 Semester
Student Workload		
Total Nr of Hours 150	Contact Hours 56	Self Study Hours / Examination 94
Further Use of Module Master´s Geodesy and Geoinformatics		

1	**Qualification Goals** After attending this course, the students understand the legal and socio-political dimensions of land ownership and land use as well as the challenges of balancing public and private interests in public land policy. Furthermore, the students know about the specific aspects of public (land) policies to promote rural and village development including corresponding funding strategies/instruments.
2	**Module Contents** Part 1 (Land tenure and land policy) presents the legal and socio-political dimension of land tenure. Furthermore, the interaction of land policy and land management tools in view of public and private interests is explained. This task is carried out offering both, a national and an international/comparative setting. It covers inter alia: fundamental principles of property ownership, real estate cadastre and title register, types of ownership and land use rights, social housing, land reform, informal settlements. This course is conducted on the basis of participant's presentations and following discussions. Certification requires regular participation and an adequate presentation. Part 2 (Rural and village development) introduces strategies/instruments for rural and village development. Particular attention is paid to integrated rural development concepts and instruments (in particular ILEK, LEADER, land consolidation, village renewal), regional management and investment measures. The influence of the public funding system in the EU is part of the lecture
3	**Forms of Teaching and Courses** Part 1 Land Tenure and Land Policy 2 S Part 2 Rural and Village Development 2 V
4a	**Participation Requirements** none
4b	**Recommendations** • Land- und Dorfentwicklung I (German, offered in the bachelor programme) • Land Management and Real Estate Economics II
5	**Requirements for Allocation of Credit Points**
	Course Achievements Course work: part 1: accepted presentation. part 2: - none
	Examination Requirements: oral examination (30 min)

6	**Literature** • Williamson, I. et al. (2010): Land Administration for Sustainable Development. • Chengzi Yin (2011): Comparative Research of Development Regulation in Urban Detailed Planning in China and Germany. ISBN 978-3-939486-589. • Steudler, D. (Editor): Cadastre 2014 and Beyond. FIG Publication No. 61 • Kummer, K. et al. (Hrsg., 2015): Das deutsche Vermessungs- und Geoinformationswesen. Band 2015, Wichmann Verlag (Teil 9 Entwicklung ländlicher Räume) ISBN 978-3-87907-547-8 • PFEIL - Programm zur Förderung der Entwicklung im ländlichen Raum der Länder Niedersachsen und Bremen. EU-Förderperiode 2014-2020, www.ml.niedersachsen.de ZILE - Richtlinie über die Gewährung von Zuwendung zur integrierten ländlichen Entwicklung, www.ml.niedersachsen.de
7	**Further Information** At least 5 participants
8	**Organisational Unit** Fakultät für Bauingenieurwesen und Geodäsie, Geodätisches Institut, Flächen- und Immobilienmanagement, www.gih.uni-hannover.de
9	**Person responsible for module** Prof. Dr. Winrich Voß