

Modulhandbuch M.Sc. Raumplanung / Module Handbook M. Sc. Spatial Planning

Beschluss Fakultätsrat Raumplanung vom 19.12.2019 zur Akkreditierung /
Decision of the Faculty of Spatial Planning Board, 13/11/2019 for accreditation

Abbreviations

L = Lecture

SE = Seminar

E = Exercise

S = Studio

WP = Wahlpflicht (compulsory optional subject / elective module)

Module 1: Allgemeine Raumforschung und Raumplanung / General Spatial Research and Planning					
Course of study: M.Sc. Raumplanung/Spatial Planning					
Regular cycle:	Duration:	Taught:	Credits:	Time:	
Each Semester	1–2 Semester	1st – 2nd Semester	8	240 h	
1	Module structure				
No.	Element / Course	Type	Credits	Hours per week	
1	Course 1	L (WP)	2	2	
2	Course 2	SE /E (WP)	4	2	
3	Module Examination		2		
2	Language of instruction German/English				
3	Course content Module 1 will provide in-depth knowledge of current spatial research and planning in a regional, national and international perspective. Course 1 offers a critical view on planning ethics and planning philosophy. In addition, findings of current research on structural change and spatial development are taught. In course 2 contents will arise either from the contents of the lectures offered, or will provide further knowledge with regard to advanced work and research methods and key skills that are essential for the profession of spatial planning.				
4	Competencies Course 1 provides a basis for a scientific and critical debate within the Master's program and directs attention to a self-reflected positioning in spatial research and space planning. Element 2 provides knowledge of advanced work and research methods, which are practiced in groups.				
5	Examinations / Exercises Module examination (graded) 1 course exercise (not graded)				
6	Type of examination / Course exercises Module examination: exercises in course 2; Course exercises: essay in course 1, active participation in course 2				
7	Prerequisite None				
8	Type of module and corresponding program Compulsory module in M. Sc. Spatial Planning				
9	Module coordinator Zimmermann		Responsible faculty Faculty of Spatial Planning (09)		

Module 2: Master Project / Master Studio					
Course of study: M. Sc. Spatial Planning					
Regular cycle: Each semester	Duration: 1 Semester	Taught: 1st – 2nd Semester	Credits: 12	Time: 360 h	
1	Module structure				
	No.	Element / Course	Type	Credits	Hours per week:
	1	M-Project	P (WP)	10	2
	2	M-Studio	S (WP)	10	2
	3	Module Examination		2	
2	Language of instruction German/English				
3	Course content Students choose between element 1 and element 2. Each of the subjects refer to current research areas of the faculty. Students learn in a cooperative way to handle complex spatial problems by scientific means within a given time frame, to highlight possible solutions. Element 1 (M-Project) focuses on the theoretical-analytical and conceptual side of planning, taking up current issues of spatial research and spatial planning. In element 2 (M-Studio) the focus lies on the spatial-conceptual planning at different scales.. The core of element 2 is a practical design task that addresses current issues of spatial development and planning.				
4	Competencies With its focus on problems, practice, processes and action within spatial planning the module fosters the self-motivated and independent work of students (inquiry-based learning). The module focuses on development of key competences such as communication, discussion and cooperation skills, consensus-building, as well as conflict management and project coordination. Element 1 (M project) enables the processing of theoretically and methodologically sophisticated questions according to scientific standards. Element 2 (M studio) deals with the design process in an integrated and inter-disciplinary approach based on current planning issues and challenges.				
5	Examinations / Exercises Module examination (graded) 1 course exercise (not graded)				
6	Type of examination / Course exercises Module examination: final report incl. defense; course exercise: Exposé (element 1) or Module examination: design incl. defense; course exercise: design concept (element 2); The Master project and the Master design work are normally elaborated in a group of between 4 - 6 students.				
7	Prerequisite None				
8	Type of module and corresponding program Compulsory module in M. Sc. Spatial Planning				
9	Module coordinator Frank		Responsible faculty Faculty of Spatial Planning (09)		

Module 3: Specialization					
Course of study: M. Sc. Spatial Planning					
Regular cycle Each Semester	Duration: 1–2 Semester	Taught: 1st – 2nd Semester	Credits: 20	Time: 600 h	
1	Module structure				
	No.	Element	Type	Credits	Hours per week
	1	Strategic urban and regional development	SE (WP)	4	2
	2	Urban development/Städtebau	SE (WP)	4	2
	3	Open space and environmental planning	SE/E (WP)	4	2
	4	Spatial and mobility research	SE/E (WP)	4	2
	5	Real Estate Management	SE (WP)	4	2
	6	Renewable Energies	SE (WP)	4	2
	7	Planning in the Global South	SE (WP)	4	2
	8	Urban Transformation	SE (WP)	4	2
	9	Partial course exercise A		2	
	10	Partial course exercise B		2	
2	Language of instruction German/English				
3	Course content Four courses are taken in this module, which can be distributed to one of four elements. In-depth knowledge on key topics and challenges of urban and regional planning are taught. Students can deepen their individual knowledge in this module. The courses, with their close relationship to current issues in spatial research and planning, are especially relevant in preparation for elaboration during the Master's thesis.				
4	Competencies The courses offered will provide in-depth expertise. Alongside university professors of the Faculty students will learn to intensively discuss the current state of research.				
5	Examinations/ Exercises 2 partial examinations or exercises (graded)				
6	Type of examination / Course exercises Partial course exercise A: Student exercise or oral examination; Partial course exercise B: Student exercise or oral examination; The partial course exercises are associated with the courses. The form of examination will be announced in the lecture catalogue ("Vorlesungsverzeichnis"). Partial course exercises can refer to two courses of an element, when offered together and sharing a common application procedure. Courses that are not offered by the Faculty of Spatial Planning may be concluded with an examination type other than the announced exam type.				
7	Prerequisite None				
8	Type of module and corresponding program Compulsory module in the M.Sc. Spatial Planning				
9	Module coordinator Gruehn		Responsible faculty Faculty of Spatial Planning (09)		

Description of Specializations

Planning in the Global South
Language of instruction English
Course content The seminars offered in this specialisation cover different phases of the planning cycle, ranging from analysis to planning and implementation. Topics include the necessary knowledge concerning land use and environmental planning, integrated settlement planning, transport and infrastructure planning and important challenges posed by climate change.
Competencies This specialisation facilitates a broad range of skills that are relevant for development planners. This includes first the collection, analysis and interpretation of social and economic data and indicators. Second the translation into land use plans, programmes and strategies as well as the work with land use conflicts and accelerating globalisation and urbanisation. And third the implementation and evaluation of plans and key projects. Students learn to design and conduct planning-oriented empirical research, to write clear research reports and to discuss and defend their work in groups.
Example courses <ul style="list-style-type: none"> a) Land Use and Analysis and Environmental Assessment b) Transport, Infrastructure and Human Settlement Planning (Analysis) c) Land Use Planning and Environmental Management d) Transport, Infrastructure and Human Settlement Planning (Planning and Implementation) e) Climate Change and Risk Management
Possible examinations / Exercises Exercises / seminar papers or oral examinations; The partial exams are assigned to one or two lectures. Lectures (a) and (b) are combined in one exam. Lectures (c) and (d) are covered together by a research paper. The method of examination and further details will be announced in the annotated lecture schedule.
Prerequisite Students should have an interest in development planning. The contents of the Module „Raumplanung International“ of the B.Sc. Raumplanung (or equivalent skills) are expected. International experience is recommended.
Responsible Individual Schramm

Strategic Urban and Regional Development
Language of instruction German/English ¹
Course content Within the focus on "Strategic Urban and Regional Development" the courses will deal – in a theory-based way and on the basis of current case studies – with concepts, objectives, institutional arrangements and procedures of strategic spatial development and management at the local, regional and large-scale level. Here the complementary interaction of formal and informal collaborative approaches and methods are of particular importance, especially with regard to acceptance requirements. The thematic focus lies on current issues, such as climate change, renewable energy and urban-regional economic development.
Competencies The focus imparts knowledge on the objectives and instruments of modern strategic planning and control. Students will acquire the expertise to evaluate success factors of strategic spatial planning and action based on empirical case studies and theoretical reflection in order to develop strategic development plans.
Example courses <ul style="list-style-type: none"> a) Planning in urban and metropolitan areas b) From regional planning to strategic regional development c) Climate change suitability in urban development d) Global spatial development and urbanization e) Historical and future development in heavy industrial agglomerations - Specialization Ruhr a) "Growth Management" – Evaluation of prospects and limitations of regional Growth management on the basis of national and international case studies
Possible examinations / Exercises Student exercise; The partial course exercises are related to the courses offered. The form of examination will be announced in the lecture catalogue ("Vorlesungsverzeichnis").
Prerequisite Knowledge according to completed undergraduate studies (B. Sc.) in Spatial Planning
Responsible Individual Wiechmann

¹ Some courses within the specializations will be taught in English and can be taken by all students as part of Module 3

Urban Development / Städtebau
Lehrveranstaltungssprache - Language of instruction Deutsch / Courses only offered in German ²
Lehrinhalte - Course content Vor dem Hintergrund sich verändernder räumlicher und gesellschaftlicher Rahmenbedingungen stellt sich die Frage nach einem verantwortlichen Umgang mit der städtebaulichen Qualifizierung und Stadtgestaltung unter den Prämissen der Profilierung, der Schrumpfung und Zentrenstärkung sowie der Stabilisierung innerstädtischer und suburbaner Quartiere. Die Vertiefung Städtebau befasst sich mit dem theoretischen und praktischen Wissen dieser vielschichtigen Herausforderungen und entwickelt auf dieser Basis Konzepte für zukunftsfähige Strategien. Besonderer Wert wird auf die verschiedenen Maßstabsebenen, die Methoden und Prozesse städtebaulicher Qualitätssicherung gelegt.
Kompetenzen - Competencies Über die Lehrveranstaltung wird das theoretische Wissen über Städtebau und dessen Zusammenhang mit der Bauleitplanung und Immobilienentwicklung vertieft. Über die Auseinandersetzung mit städtebaulichen Prozessen wird die Entwurfsfähigkeit im räumlichen und funktionalen Kontext der Stadt eingeübt. Die theoretischen Inhalte bereiten auch auf die Referendarausbildung im höheren Verwaltungsdienst vor.
Veranstaltungen (Beispiele) - Example courses methods of urban design a) Quality assurance in urban planning and historic preservation b) Land use planning f) Urban Planning and Real Estate Development
Mögliche Prüfungen/Teilleistungen - Possible examinations/Partial assignments Studienarbeiten oder mündliche Prüfungen; Die Teilleistungen sind den Veranstaltungen zugeordnet. Die Prüfungsform wird im kommentierten Vorlesungsverzeichnis angekündigt.
Inhaltliche Voraussetzungen - Prerequisite Kenntnisse entsprechend des abgeschlossenen Bachelor-Studiums Raumplanung (inkl. Modul 5), Stadtplanung, Architektur, Landschaftsplanung
Verantwortliche – Responsible Individual Head of Department Urban Design

² Some courses within the specializations might be taught in English and can be taken by all students as part of Module 3

Open Space and Environmental Planning
Language of instruction German/English ³
Course content As part of this focus, a range of different courses on the topics of open space, landscaping and environmental planning is offered. The focal point is on current topics (such as adaptation to climate change), and instrumental (effectiveness of planning instruments) as well as methodological aspects (modeling; design, planning and research methods).
Competencies Students deepen their scientific knowledge and planning skills in the topics mentioned above and learn from current problems and research topics to develop methodologically sound solutions.
Example courses <ul style="list-style-type: none"> a) Instruments of landscape and environmental planning b) Methods of Environmental Planning and Research c) Methods of Geoinformatics in Spatial Planning d) Urban ecology and open space planning c) Handling of space-related risks and consequences of climate change in spatial planning
Possible examinations/ Exercises Student (research) papers or oral examinations; The partial course exercises refer to the courses. The form of examination will be announced in the lecture catalogue ("Vorlesungsverzeichnis").
Prerequisite Basic knowledge of landscape ecology, landscape and environmental planning and GIS is required.
Responsible Individual Gruehn

³ Some courses within the specializations will be taught in English and can be taken by all students as part of Module 3

Spatial and Mobility Research
Language of instruction German/English ⁴
Course content A main feature of this focus is the research-oriented discussion of current issues of spatial development and mobility. The course focuses in particular on the study of theoretical concepts and methodological tools of spatial and mobility research, the development and preparation of research questions as well as on writing scientific texts and on the interpretation of empirical findings.
Competencies Students deepen their knowledge of spatial science and skills, get to know current regional and transport research topics and research designs and learn to design their own research projects. At the same time they will learn to undertake methodically challenging research projects and to link research findings with conceptual conclusions. At the same time they learn to present research findings in writing and orally.
Example courses <ul style="list-style-type: none"> a) Advanced methods of quantitative mobility research b) From traffic analysis to transportation concepts c) Migration, segregation, integration - empirical research and technical discussions d) Design and acquisition of research projects e) Transportation planning in the city and region
Possible examinations / Assignments Student (research) papers; The partial course exercises refer to the courses. The form of examination will be announced in the lecture catalogue ("Vorlesungsverzeichnis").
Prerequisite It is assumed that students have basic knowledge of qualitative and quantitative research methods or acquire this knowledge prior to the course. Own experiences in the implementation, such as in the Bachelor thesis, are desirable.
Responsible Individual Holz-Rau

⁴ Some courses within the specializations will be taught in English and can be taken by all students as part of Module 3

Real Estate Management (In cooperation with Faculty 10)
Lehrveranstaltungs-sprache - Language of instruction Deutsch / Courses only offered in German ⁵
Lehrinhalte - Course content Gegenstand ist das Management integrierter Wohn- und Gewerbeimmobilien. Entsprechend des zentralen Lebenszyklusansatzes werden die Methoden und Instrumente zur Planung, Entscheidung und Steuerung von Immobilien sowohl in der Entwicklungs- als auch in der Nutzungsphase vorgestellt und angewandt. In „Immobilienprojektentwicklung“ werden z.B. zunächst einzelne Neubauprojekte im Wohn- und Gewerbebau konzeptioniert und im Hinblick auf ihre Machbarkeit untersucht. Dazu werden den Teilnehmerinnen und Teilnehmern phasenorientiert die notwendigen theoretischen Methoden und Controllinginstrumente wie das Benchmarking im Rahmen der Standort- und Marktanalyse, die rechnergestützte Flächen- und Kostenanalyse für Nutzungskonzeptionen wie auch die rechnergestützte Wirtschaftlichkeitsanalyse in der Ableitung des Entwicklungskonzeptes vorgestellt. Diese methodischen und instrumentellen Grundlagen werden in der Folgeveranstaltungen zu den integrierten „Flächen- und Bestandsentwicklungen“ aufgegriffen. Innerhalb dieser Entwicklungsprojekte werden u.a. Optimierungs- und Simulationsmodelle für die Planung aber auch für die Projektsteuerung unter Berücksichtigung der Entwicklungsrisiken und der Prognoseunsicherheit erarbeitet. Sie werden ergänzt durch Abweichungs- und Wirkungsanalysen. Für das Management in der Nutzungsphase werden Immobilien dann einmal aus der eher technischen Perspektive des Facility Managers und einmal aus der kaufmännischen Perspektive des Asset Managers untersucht.
Kompetenzen - Competencies Das Modul vermittelt die theoretischen Kenntnisse, die für die integrierte Entwicklung und Nutzung von Wohn- und Gewerbeimmobilien erforderlich sind. Entsprechend des allgemeinen Controlling-Leitbildes reichen diese von der ex-ante Planung und Analyse über die Entscheidungsbewertung bis hinein in die ex-post Wirkungskontrolle. Anhand empirischer Fallstudien wird die Fach- und Handlungskompetenz zur Beurteilung der Erfolgsfaktoren sowie zum zieladäquaten Mitteleinsatz auf den verschiedenen Gebieten des Immobilienmanagements theoretisch erworben und praktisch anhand integrierter Übungen und realer Entscheidungssituationen im PC-Pool erprobt.
Veranstaltungen (Beispiele) - Example courses a) Immobilienprojektentwicklung b) Flächen- und Bestandsentwicklung c) Asset und Portfoliomanagement (Fak. 10) e) Facility Management I (Fak. 10)
Mögliche Prüfungen / Teilleistungen - Possible examinations / Partial exercises Studienarbeiten oder Klausuren (Fak. 10); Die Teilleistungen sind den Veranstaltungen zugeordnet. Die Prüfungsform wird im kommentierten Vorlesungsverzeichnis angekündigt.
Inhaltliche Voraussetzungen - Prerequisite Es wird erwartet, dass alle teilnehmenden Master-Studierenden ein vergleichbares ‚Know-how‘, wie Sie es durch den Besuch des Moduls „Wohn- und Gewerbeimmobilien“ (im Bachelor Raumplanung der TU Dortmund: Modul 22) erworben wird, aufweisen.
Verantwortliche – Responsible Individual Nadler

⁵ Some courses within the specializations might be taught in English and can be taken by all students as part of Module 3

<p>Erneuerbare Energien / Renewable Energies Kooperationsschwerpunkt mit Fak. 08 - In cooperation with Faculty 08</p>
<p>Lehrveranstaltungssprache - Language of instruction Deutsch / Course only offered in German⁶</p>
<p>Lehrinhalte - Course content Der Schwerpunkt bietet eine umfassende Verknüpfung elektrotechnischer und raumplanerischer Fragestellungen im Rahmen der lokalen und regionalen Erzeugung und Nutzung erneuerbarer Energien. Aufgegriffen werden die aktuellen Zielsetzungen für einen Umbau des deutschen Strom- und Wärmeversorgungssystems und der eingeleiteten Entwicklungsprozesse im Rahmen der Energiewende. Schwerpunkte sind hierbei zum einen die raumbezogenen Planungsprozesse auf kommunaler und regionaler Ebene zur Ermittlung und Umsetzung der erforderlichen Flächen, Standorte und Trassen, zum anderen die Aufstellung von integrierten Entwicklungsplänen als Abstimmungsprozess zwischen den unterschiedlichen Akteuren aus den Bereichen der Fachplanung Energie sowie aus der räumlichen Gesamtplanung. Der Schwerpunkt integriert durch die Kooperation mit der Fakultät 08 eine Verknüpfung zu vertieftem Fachwissen aus der elektrischen Energietechnik (u. a. Dezentrale Versorgungsstrukturen, Technologien, Einspeisung, Netzintegration, Netzbetrieb, Rationelle Energiewandlung, Energiemanagement) als Grundlage für diese Planungen.</p>
<p>Kompetenzen - Competencies Die Studierenden vertiefen ihre raumwissenschaftlichen Kenntnisse und Kompetenzen und ergänzen diese um fachtechnische Kenntnisse aus dem Bereich der elektrischen Energietechnik. Hierzu lernen sie aktuelle raum- und energiewissenschaftliche Forschungsthemen mit hoher Aktualität und starkem Anwendungsbezug kennen. Gleichzeitig lernen sie interdisziplinär zu arbeiten und Fachinhalte aus der Energiewirtschaft und Energietechnik zu präsentieren und schriftlich oder mündlich darzustellen. Mit einer breiten ingenieurwissenschaftlichen Grundlage bildet dieser Schwerpunkt darauf vor, den Herausforderungen der Energiewende interdisziplinär zu begegnen und sie von der technischen und planerischen Vorbereitung bis zu Umsetzung und Evaluation zu begleiten.</p>
<p>Veranstaltungen (Beispiele) - Example courses</p> <ul style="list-style-type: none"> a) Kommunale und regionale Energiekonzepte b) Raumplanerische Aspekte erneuerbarer Energien c) Dezentrale und regenerative Energieversorgung (Fak. 08) d) Energieeffizienz und Power Quality (Fak. 08)
<p>Mögliche Prüfungen / Teilleistungen - Possible examinations / Partial exercises Studienarbeiten oder mündliche Prüfungen; Die Teilleistungen sind den Veranstaltungen zugeordnet. Die Prüfungsform wird im kommentierten Vorlesungsverzeichnis angekündigt. Veranstaltung a und d sowie b und c werden jeweils gemeinsam geprüft.</p>
<p>Inhaltliche Voraussetzungen - Prerequisite Es wird vorausgesetzt, dass die Studierenden über Grundkenntnisse aus der Physik (Elektrotechnik) verfügen oder sich diese im Vorfeld der Veranstaltungen aneignen. Eigene Erfahrungen in der Anwendung, z. B. in der Bachelor-Arbeit, sind erwünscht.</p>
<p>Verantwortliche – Responsible Individual Grigoleit</p>

⁶ Some courses within the specializations might be taught in English and can be taken by all students as part of Module 3

Urban Transformation
Lehrveranstaltungssprache / Language of instruction Englisch
<p>Course content</p> <p>All urban areas in advanced European countries and beyond are facing huge spatial challenges. The drivers for urban transformation are manifold and include technological change and digitalization (smart cities), migration and demographic changes, climate change, increasing relevance of agglomeration economies, as well as post- and re-industrialization. The spatial impacts of these transformations are complex and in part contradictory. Growth in metropolises (or post-metropolis) goes hand in hand with functional and physical densification in de-centralized agglomerations. At the same time, we observe urban shrinkage, the growth of low-density suburbs and the rising relevance of what Sieverts called the Zwischenstadt (in-between city). The spatial implications of structural change and the organization of such transformation demand for deliberate strategies to plan, govern and revitalize urban areas, economically, socially and environmentally. In the scholarly literature, a wide range of new forms of interventions such as social innovation, governance, social innovation, resilience, urban laboratories and urban strategy are discussed to established approaches like learning regions or incremental planning.</p>
<p>Competencies</p> <p>The specialization aims to attract highly qualified students, wishing to learn more about innovative strategies to transform cities and regions at a location offering brilliant in situ conditions to understand the complexity of governance and planning. The programme builds upon a full 4-year bachelor programme in spatial planning, as established at the TU Dortmund. The philosophy of the programme is based on the understanding of planning as a multi-disciplinary discipline. The course and projects in the programme seek to bridge international theories of structural change and spatial transformation with the practice of governance in cities and regions.</p>
<p>Example courses</p> <ul style="list-style-type: none"> b) Ruhr as laboratory for structural change c) European experience in transformation processes d) Innovative strategies for traditional industrial regions e) Economics of structural change f) European Planning Systems and Planning Cultures
<p>Possible examinations / Exercises</p> <p>Student research papers</p>
<p>Prerequisite</p> <p>It is expected that students with a bachelor or master degree in other disciplines besides planning (such as geography, urban and regional economics, political science, public management, urban design, landscape design, urban engineering, sociology or cultural studies) have profound knowledge and competence in spatial planning.</p>
<p>Responsible Individual</p> <p>Zimmermann</p>

Module 4: Master Thesis					
Course of studies: M. Sc. Spatial Planning					
Regular cycle: Each semester	Duration: 1 Semester	Taught: 2nd semester	Credits: 20	Time: 600 h	
1	Module structure				
	No.	Element / course	Type	credits	Hours per week
	1	Master thesis	(WP)	20	
2	Language of instruction German/English				
3	Course content The Master's thesis is a scientific work in the field of spatial planning. The work may have a theoretical, empirical or conceptual/creative focus. Students can make suggestions for the theme of the work.				
4	Competencies The Master thesis is to show that the student is able to work independently within a given period of four months on a complex spatial planning issue according to scientific standards and methods.				
5	Examinations Module examination (graded)				
6	Type of examination / Course exercise Master thesis (max. 175.000 characters, without spaces); The Master thesis can be prepared and written by two students.				
7	Prerequisite none				
8	Type of module and corresponding program Compulsory module in the M.Sc. Spatial Planning ("Raumplanung")				
9	Module Coordinator Chair of Examination Board		Responsible Faculty Faculty of Spatial Planning (09)		