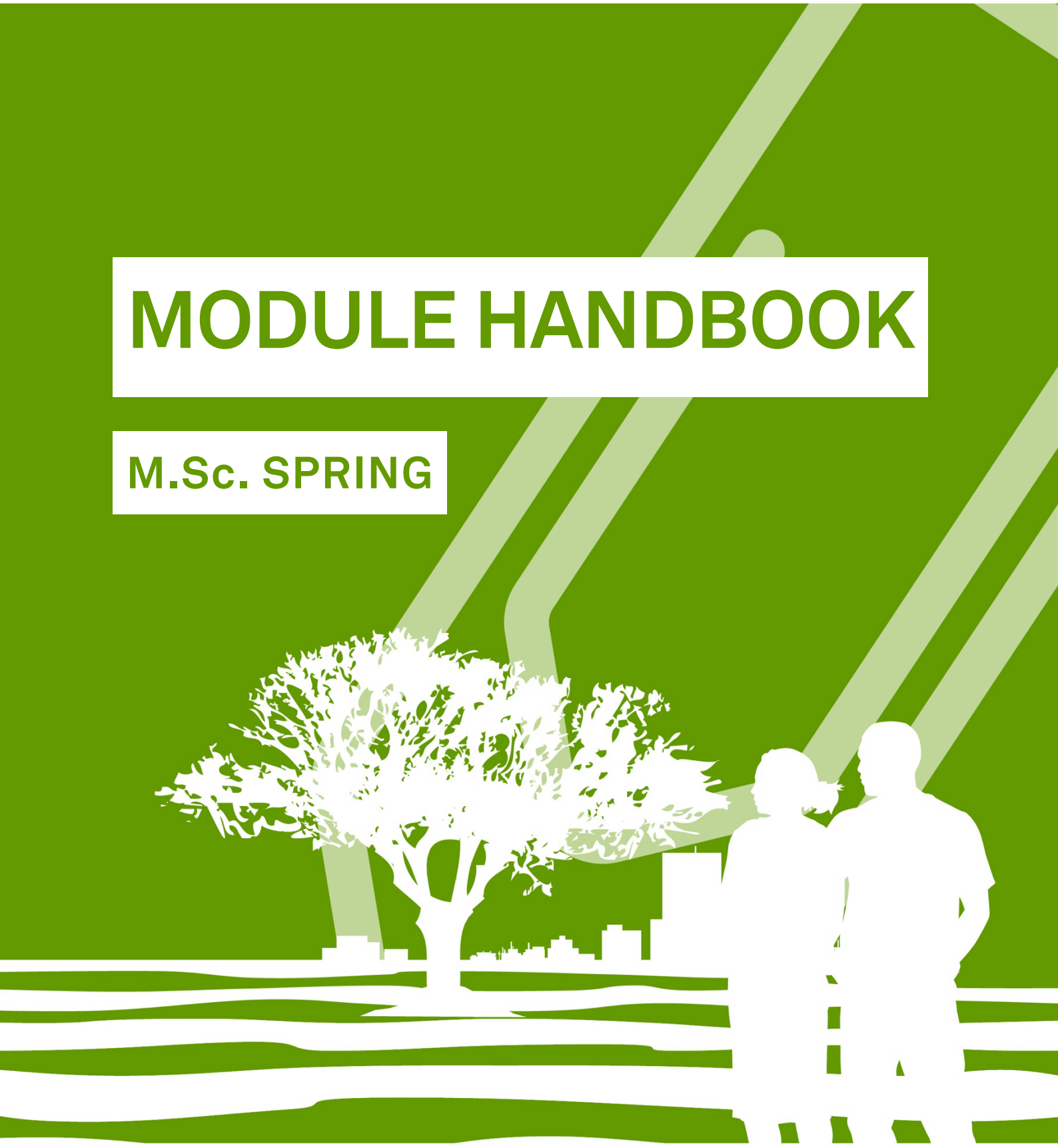
technische universität
dortmund

MODULE HANDBOOK

M.Sc. SPRING



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SPRING

Department of
Spatial Planning

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Abbreviations

L	Lecture
LS	Lecture Seminar
E	Exercise
Exc	Excursion
L/E	Lecture/Exercise
L/S	Lecture/Seminar
P	Project
S	Seminar
CH	Contact Hours
e	elective
m	mandatory

a: KNUST (Kwame Nkrumah University of Science and Technology) Ghana
b: UP (University of the Philippines) The Philippines
c: ARU (Ardhi University) Tanzania
d: UACh (Universidad Austral de Chile) Chile
e: UFABC (Universidade Federal do ABC) Brazil

Module 1: Rapidly Urbanizing Regions: Planning and Governance

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year (winter term)	1 Semester	1st Semester	7	210 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Planning and Infrastructure Theories and Concepts	LS (m)	2	2
2	Governance & Decision Making	LS (m)	2	2
3	Module exam		3	

2	**Language of instruction:** English
3	**Teaching content:** This module contains two courses introducing theories and concepts of spatial planning from a broad perspective. In particular, they will also deal with bridging the divide between theory and practice. Course contents are: Planning and Infrastructure Theories and Models: • Circulating planning and infrastructural models and their place-specific adaptation (e.g., networked city) • Infrastructure and planning theories (e.g. strategic planning, co-production) with a focus on Southern urbanisms and postcolonial planning perspectives. Urban Governance and Urban Transformation: • Theories of urban governance and decision-making processes; • Relationship between planning and politics as well as the organizational and institutional structures for implementing regional and urban policies, including strategic and tactical approaches
4	**Competencies:** The students acquire the ability to • understand current planning and infrastructural models • understand the dynamics of travel and adaptation of planning and infrastructural models • understand the spatial and temporal relatedness of theories and models and what this means for their applicability in other places
5	**Examinations:** Module exam (graded)
6	**Types of examinations and performances:** Poster and Defense. Active oral and written participation in the lecture seminars is a requirement for the module exam.

7	**Recommended knowledge:** None
8	**Formal requirements:** None
9	**Module type and applicability of the module:** Mandatory module for M.Sc. SPRING

10	**Module coordinator:** Schramm	**Responsible department:** TU Dortmund University, Department of Spatial Planning (09)

11	**Literature:**
12	**Further Information:**

Module 2: Project Planning Practice

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year (summer term)	1 Semester	2nd Semester	12	360 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Master Project	P (m)	10	8
2	Module Examination		2	

2	**Language of instruction:** English
3	**Teaching content:** The module refers to current research areas of the department. Students learn in a cooperative way to handle complex spatial problems by scientific means within a given time frame, to highlight possible solutions. It focuses on the theoretical-analytical and conceptual side of planning, taking up current issues of spatial research and spatial planning.
4	**Competencies:** With its focus on problems, practice, processes and action within urban and regional planning the module fosters the self-motivated and independent work of students (research-based learning). The module focuses on development of key competences such as communication, discussion and cooperation skills, consensus-building, as well as conflict and project management. It enables the processing of theoretically and methodologically sophisticated questions as a basis for the formulation of propositions, concepts or recommendations relevant for planning practice.
5	**Examinations:** Module examination (graded); 1 course exercise (ungraded)
6	**Types of examinations and performances:** Module examination: final report incl. defense; course exercise: exposé
7	**Recommended knowledge:** Course contents of Module 1 and 4
8	**Formal requirements:** None
9	**Module type and applicability of the module:** Mandatory module for M.Sc. SPRING

10	**Module coordinator:** Schramm	**Responsible department:** TU Dortmund University, Department of Spatial Planning (09)

11	**Literature:**

12	Further Information:

Module 3: Climate Change, Land, Infrastructures in Rapidly Urbanizing Regions

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	2 semesters	1st-2nd semester	24	720 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Seminar I	S (e)	4	2
2	Seminar II	S (e)	4	2
3	Seminar III	S (e)	4	2
4	Seminar IV	S (e)	4	2
5	Seminar V	S (e)	4	2
6	Exam: Academic Paper		4	

2	**Language of instruction:** English
3	**Teaching content:** This module includes topics of urban and regional planning across the globe with a focus on the global South derived from thematic areas like Climate Change, Spatial Data Management, Infrastructure, Land Management. The courses cover issues such as: • Climate change induced impacts and its ensuing challenges for planning with special attention to disaster resiliency and mitigation/adaptation strategies • The visualization of spatial data and GIS • Heterogeneous infrastructures and their governance • Theories of local economic policy making • Concepts and approaches for environmentally sound and sustainable land and housing policy in urban and peri-urban areas • Housing
4	**Competencies:** The students acquire the ability to • appraise causes and effects of human and natural induced disasters and identify appropriate mitigation measures, • use GIS for the visualization of spatial data, • understand infrastructure as a matter that is more than physical or economic and take into account the ways that people provide and access services every day • understand place- and evidence based economic policy • re-evaluate conventional infrastructural approaches and policies and identify progressive solutions to current infrastructure challenges, critically

	reflect concepts of land use and housing and review them in the light of their own countries' experiences, • assess and propose mechanisms for efficient land management. Regarding the academic paper students acquire the methodological, analytical and communicative abilities to • identify a research problem and structure a scientific paper, • identify, select and analyze relevant literature and data as far as available, • write an academic paper according to scientific standards, • develop planning proposals against the background of scientific discussion.
5	**Examinations:** Module exam (graded)
6	**Types of examinations and performances:** An independent but supervised academic paper of up to 60.000 characters focusing on urban and regional planning issues of the seminar topics. Active oral and written participation in the seminars is a requirement for the module exam.
7	**Recommended knowledge:** None
8	**Formal requirements:** None
9	**Module type and applicability of the module:** Mandatory module for M.Sc. SPRING

10	**Module coordinator:** Greiving	**Responsible department:** TU Dortmund University, Department of Spatial Planning (09)

11	**Literature:**
12	**Further Information:**

Module 4: Spatial Planning in Germany in a Comparative Perspective

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year (winter term)	1 semester	1st semester	9	270 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Sustainable Urban and Regional Planning in Germany: Systems, Strategies, and Digital Tools	L (m)	2	2
2	Excursion Berlin or Elsewhere	Exc (m)	2	2
3	Comparative Approaches for Planners	E (m)	2	2
4	Module exam		3	

2	**Language of instruction:** English
3	**Teaching content:** This module contains a lecture providing an introduction to urban and regional planning and to urban and city-regional transformation processes in Germany, an excursion to Berlin or another location, and an exercise focusing on comparative approaches for planning research. Sustainable Urban and Regional Planning in Germany: Systems, Strategies, and Digital Tools • Overview of the German planning system, including its institutional framework, key planning instruments, and mechanisms for public participation and inter-municipal coordination • Identification of policy and planning priorities with regard to sustainable urban development and transformation, addressing potential fields such as brownfield redevelopment, water-sensitive planning, climate adaptation, social inclusion, mobility transition, and digital transformation in urban governance and design. • Critical reflection on the German planning system and its practices within an international context Excursion Berlin or Elsewhere • Supervised excursion Berlin or elsewhere covering topics like urban development and city models, social infrastructures and neighborhood development, as well as large infrastructure projects Comparative Approaches for Planners

	• Different methods of tactics for, and approaches to, comparison, e.g. of places, planning approaches, or situations. This takes into account aspects from the lecture, such as critical reflections of the German planning system in an international perspective. • Methods or tools to establish a relation between critical, in-depth analysis and the formulation of concepts, recommendations or propositions for urban or regional planning or policies • Identification of sub-topics within a given thematic frame as a basis for Module 2 (project)
4	**Competencies:** Students will be able to • understand the institutional and procedural framework of urban and regional planning in Germany; • critically assess planning approaches, instruments, and policies with regard to sustainable urban transformation; • reflect on the implications of digitalization for planning practice and governance; • compare German planning traditions and strategies with international examples; • understand the dynamics of project implementation beyond planning; • develop reasoned recommendations or conceptual propositions for urban or regional development based on analytical insights; • identify and apply comparative methods, tools and approaches and especially reflect German planning systems and practices in an international perspective; • connect in-depth scientific analysis with the formulation of concepts, recommendations, or propositions for planning and policies; • develop planning proposals grounded in scientific research and adapted to rapidly urbanizing regions in the South.
5	**Examinations:** Module exam (graded)
6	**Types of examinations and performances:** Exposé and its Presentation as Basis for Module 2
7	**Recommended knowledge:** None
8	**Formal requirements:** None
9	**Module type and applicability of the module:** Mandatory module for M.Sc. SPRING

10	**Module coordinator:** N.N.	**Responsible department:** TU Dortmund University, Department of Spatial Planning (09)

11	**Literature:**
12	**Further Information:**

Module 5: Planning Tools & Methods

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year (winter term)	1 semester	1st semester	8	240 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Gender and Participation in Planning	E (m)	2	1
2	Spatial Data Analysis	E (m)	2	2
3	Academic Paper Design	E (m)	2	2
4	Presentation & Group Facilitation Skills	E (m)	2	1
5	4 Partial Exams Graded			

2	**Language of instruction:** English
3	**Teaching content:** Methods of data generation, analysis, and interpretation in the context of spatial planning, participation techniques and the role of gender, academic writing and paper design and group facilitation and presentation techniques. Gender and Participation in Planning • Methods and procedures of gender (data) analysis and planning • Concepts and challenges for participation • Methods and tools for target group-oriented participatory planning Spatial Data Analysis • Key principles of inferential spatial statistical techniques • Practical application of spatial statistical methods in planning contexts Academic Paper Design • Introduction to research design and operationalization • Writing for different target groups and different genres of text (journal article, theses, newspaper articles, etc.) • Exercises in structuring texts and in writing style with peer review Presentation and Group Facilitation Techniques • Introduction to moderation of meetings and, group facilitation of participatory planning workshops • Different presentation techniques with exercises
4	**Competencies:** The students acquire the methodological and communicative abilities to

	• research and analyze the role of gendered/intersectional inequalities for spatial development and planning • design and evaluate participatory, gender- and diversity-sensitive planning processes • participate in and lead goal-oriented, interdisciplinary, and cooperative group work and meetings • translate complex content into good presentations with suitable visualization • connect in-depth scientific analysis with the formulation of concepts recommendations, or propositions for planning and policies • write well-structured and convincing texts following scientific standards for different target audiences • handle spatial statistical computing environments • interpret spatial statistical analysis results.
5	**Examinations:** 4 Partial Exams (graded)
6	**Types of examinations and performances:** The examination format will be announced at the beginning of each course.
7	**Recommended knowledge:** None
8	**Formal requirements:** None
9	**Module type and applicability of the module:** Mandatory module for M.Sc. SPRING

10	**Module coordinator:** Westerholt	**Responsible department:** TU Dortmund University, Department of Spatial Planning (09)

11	**Literature:**
12	**Further Information:**

KNUST Ghana – Module 6a: Planning and Research Methods

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd semester	4	120 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Spatial Statistics	L/E (m)	2	3
2	Planning Surveys and Research Methodology	L/E (m)	2	3

2	**Language of instruction:** English
3	**Teaching content:** This module consists of three courses covering the following contents: Statistical methods for planners, analyzing operationalization of research instruments, empirical research methods, participatory data gathering and analysis methods.
4	**Competencies:** The students acquire the ability to • conduct empirical research (field work, data analysis, report writing); • select and apply appropriate statistical methods and spatial analysis techniques for addressing problems and issues in urban and regional planning; • apply scientific methods in decision-making, policy-formulation, planning and management processes.
5	**Examinations:** two Partial Exams (graded)
6	**Types of examinations and performances:** Course 1: assignment papers and written exam; Course 2: assignment papers and written exam
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree in Kumasi.

10	**Module coordinator:**	**Responsible department:** Kwame Nkrumah University of Science and Technology, Department of Planning

11	Literature:
12	Further Information:

KNUST Ghana – Module 7a: Policy Planning and Implementation in Ghana

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd semester	2	60 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Governance of Development	L/E (e)	2	3
2	Political Economy of Development	L/E (e)	2	3
3	Sociology of Development	L/E (e)	2	3

2	**Language of instruction:** English
3	**Teaching content:** Students have to choose one out of three courses. This module deals with institutional and practical issues of designing and implementing development policies in Ghana also including lectures by invited practitioners: • Governance structures and institutional reforms associated with decentralization, legislative instruments, institutional collaboration, and governance. • Development of lower-level planning structures, challenges of grassroots participation and empowerment, the role of planners in these processes.
4	**Competencies:** The students acquire the ability to • understand, assess and monitor the evolving institutional structures, formal and informal processes, operating dynamics as well as practical constraints and problems of a decentralized system; • assess the interests and capacities of various institutions and stakeholders in Ghana's planning system; • understand a planner's options for coordinating and managing the development process within a decentralized framework; • Compare the Ghanaian planning system and experiences with other countries.
5	**Examinations:** Graded assignment papers plus oral exam for the course taken (see below).
6	**Types of examinations and performances:** Covering the entire module; Written assignment papers and oral presentation
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.

9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree in Kumasi.

10	Module coordinator:	**Responsible department:** Kwame Nkrumah University of Science and Technology, Department of Planning

11	Literature:
12	Further Information:

KNUST Ghana – Module 8a: Development Planning Workshop

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	2 semesters	3rd and 4th semester	14	420 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Development Planning Workshop (3rd semester)	L/E (m)	6	6
2	Development Planning Workshop (4th semester)	L/E (m)	8	6

2	**Language of instruction:** English
3	**Teaching content:** In the development workshop the students engage with a real world case study area, typically a district. Over the course of two semesters the students spend several weeks in the district for field studies (interviews, data collection, etc.). Working in groups and guided by the workshop supervisor the students go through the typical planning processes and development issues, combining methods and knowledge of all previous SPRING courses.
4	**Competencies:** The students acquire the ability to • generate and analyze empirical data for identifying problems and potentials • conduct consultative meetings with key stakeholders of the study area • develop a comprehensive development plan for the case study area • design strategies and derive feasible projects • disseminate and discuss the plan with key stakeholders • engage in goal-oriented, interdisciplinary group work
5	**Examinations:** The students produce a written report and corresponding charts and maps. In addition, there are oral examinations (individual and as a group) for testing contents and methods employed in the workshop. All of these are graded.
6	**Types of examinations and performances:** Covering the entire module: a) Written report, chart and maps; b) Oral examination Relating to individual courses
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree in Kumasi.

10	Module coordinator:	Responsible department: Kwame Nkrumah University of Science and Technology, Department of Planning

11	Literature:
12	Further Information:

KNUST Ghana – Module 9a: MASTER THESIS

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	2 semesters	3rd and 4th semester	12	360 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Master Thesis	Individual work (m)	6	
2	Module Exam: Master Thesis defense		6	

2	**Language of instruction:** English
3	**Teaching content:** The master thesis is an independent research work produced by each student individually, yet supervised by one lecturer. The thesis should deal with a real world problem, which is of relevance to a particular area, e.g. the district in which the development workshop takes place.
4	**Competencies:** The students acquire the ability to • define and operationalize a researchable topic • identify and design appropriate research tools • search and analyze relevant literature • collect and analyze empirical data • derive relevant findings and recommendations • write a scientific report
5	**Examinations:** Written thesis assessed individually by several examiners, final mark determined by entire examination committee after oral defense; external examiner from one of the SPRING network partner universities present at thesis defense
6	**Types of examinations and performances:** Covering the entire module: a) Master Thesis; b) Oral Examination
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree in Kumasi.

10	**Module coordinator:**	**Responsible department:** Kwame Nkrumah University of Science and Technology, Department of Planning

11	Literature:
12	Further Information:

UP Philippines – Module 6b: Planning and Research Methods

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd semester	13,5	405 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Land Use Planning	L/E (m)	4.5	3
2	Research Methods in Planning	L/E (m)	4.5	3
3	Planning Analysis and Techniques	L/E (m)	4.5	3

2	**Language of instruction:** English
3	**Teaching content:** This module consists of two courses covering the following contents: • Formulating the research design, quantitative and qualitative research methods for planners, analysis of spatial data • Primary and secondary data collection methods, conduct of participatory research, and tools and techniques of data analysis relevant to planning
4	**Competencies:** The students acquire the ability to • conduct empirical research (field work, primary and secondary data analysis, report writing); • select and apply appropriate statistical methods and spatial analysis techniques for addressing problems and issues in urban and regional planning; • apply scientific methods in decision-making, policy formulation, planning and management processes.
5	**Examinations:** Graded written exams for Planning Analysis and Techniques. Graded research proposal and group survey for Research Methods in Planning. Graded land use plan output for Land Use Planning.
6	**Types of examinations and performances:** Covering the entire module; Relating to individual courses: Course 1: land use plan formulation Course 2: individual research proposal, group survey Course 3: written exam
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:** Asst. Prof. Mark Anthony M. Gamboa	**Responsible department:** University of the Philippines, School of Urban and Regional Planning

11	**Literature:**
12	**Further Information:**

UP Philippines – Module 7b: Policy Planning and Implementation in the Philippines

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd semester	13,5	405 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Planning Process	L/E (m)	4.5	3
2	Special Problems in Urban Planning	L/E (m)	4.5	3
3	Special Problems in Regional Planning	L/E (m)	4.5	3

2	**Language of instruction:** English
3	**Teaching content:** This module deals with institutional and practical issues of designing and implementing development policies in the Philippines. It covers the system of development planning in the country, the Philippine planning process, the hierarchy of plans, and the formulation and implementation of the Comprehensive Development Plan and Comprehensive Land Use Plan, among others. The module covers administrative and political structures as well as reforms associated with decentralization, legislative instruments, institutional collaboration, governance issues; in addition, major planning approaches and strategies for promoting national and sub-national growth and development are discussed.
4	**Competencies:** The students acquire the ability to • understand, assess and monitor the evolving institutional structures and formal and informal planning processes • assess the role, interests and capacities of various institutions and stakeholders in the Philippine planning system • understand a planner's options for coordinating and managing the development process within a decentralized framework; • compare the Philippine planning system and experience with those of other countries
5	**Examinations:** Graded written exams for Planning Process; written analytical papers for Special Problems in Urban Planning and in Special Problems in Regional Planning
6	**Types of examinations and performances:** Covering the entire module; Relating to individual courses: Course 1: written exams; Course 2: written analytical papers; Course 3: written analytical papers
7	**Recommended knowledge:** None

8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:** Asst. Prof. Mark Anthony M. Gamboa	**Responsible department:** University of the Philippines, School of Urban and Regional Planning

11	**Literature:**
12	**Further Information:**

UP Philippines – Module 8b: Development Planning Workshop

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd-4th semester	15	450 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Planning Workshop	L/E (m)	15	10

2	**Language of instruction:** English
3	**Teaching content:** The students engage with a real-world case study/laboratory area. Over the course of two semesters the students spend several weeks in the field study area (conducting interviews, data collection, site observation, and consultation workshops). Collaborating in groups and guided by the workshop supervisor, the students go through the typical planning process and development issues, applying the methods and knowledge of all previous SPRING courses.
4	**Competencies:** The students acquire the ability to • generate and analyze empirical data for identifying planning problems and solutions • conduct consultative meetings with key stakeholders of the study area • develop/formulate/update a relevant plan for the case study area • design strategies and derive feasible projects • disseminate and discuss the plan with key stakeholders • engage in a goal-oriented, interdisciplinary group work
5	**Examinations:** The students produce a plan addressing the stated needs of the workshop site. In addition, there are oral examinations (individual and as a group) as well as an individual exam for testing contents and methods employed in the workshop. All of these examinations are graded.
6	**Types of examinations and performances:** Covering the entire module: a) Development plan or sector plan; b) Oral examinations; c) Written exam
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:** Asst. Prof. Mark Anthony M. Gamboa	**Responsible department:** University of the Philippines, School of Urban and Regional Planning

11	Literature:
12	Further Information:

UP Philippines – Module 9b: MASTER THESIS

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	4th semester	18	540 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Master Thesis	Individual work (m)	18	12 (with thesis supervisor)

2	**Language of instruction:** English
3	**Teaching content:** The master thesis is an independent research work produced by each student, and supervised by a thesis committee. It is expected that the thesis deals with a current spatial planning problem which is of relevance to the study area and which can contribute to its development.
4	**Competencies:** The students acquire the ability to • define and operationalize a reasonable topic • identify and design appropriate research tools • search and analyze relevant literature • collect and analyze empirical data • derive relevant findings and recommendations • write a thesis and defend it
5	**Examinations:** Written thesis assessed individually by several examiners, final mark determined by the entire examination committee after oral defense; external examiner from one of the SPRING network partner universities present at thesis defense.
6	**Types of examinations and performances:** Covering the entire module a) Proposal Presentation b) Public Presentation of the Thesis c) Submission of Final Draft of Thesis (Manuscript) d) Oral Examination (Thesis Defense)
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:** Asst. Prof. Mark Anthony M. Gamboa	**Responsible department:** University of the Philippines, School of Urban and Regional Planning

11	Literature:
12	Further Information:

Total Credit Points for 2nd year at ARU: 120CPs; 1 Tanzanian CPs ≙ 10 hrs workload

ARU Tanzania – Module 6c: Planning and Research Methods

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd semester	16	160 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Research Methods for Spatial Planners	L/E (m)	8	3
2	Digital Data and Spatial Planning	L/E (m)	8	3

2	**Language of instruction:** English
3	**Teaching content:** • Course 1 covers the research process, design, strategies, data collection and sampling techniques, and quantitative, spatial, and qualitative data analysis methods. It also focuses on synthesis of findings, dissertation writing, citation and referencing, and ethical issues in research. • Course 2 covers principles, sources, capture, analysis, and visualization of digital spatial data using GIS, remote sensing, and geospatial tools for spatial and urban planning.
4	**Competencies:** • basic and applied skills in research design, execution, report writing and in principles of dissemination of research findings • current research issues for urban and regional planners in developing countries • social science and natural science research approaches • deductive and inductive approaches to research • the extent to which policy makers use knowledge generated from research activities in the global south and what could be done about it • nature of urban environmental information management • types of management, strategic planning, management control, operational control • characteristics of environmental Information • quality attributes of environmental information, specification of user needs • environmental mapping and monitoring • application and examples of GIS and RS in urban planning and management
5	**Examinations:** There will be graded written examinations for all both courses (see below).

6	**Types of examinations and performances:** Covering the entire module Relating to individual courses: Course 1: two oral presentations and written research proposal (Dissertation I); Course 2: written exam
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:**	**Responsible department:** Ardhi University, School of Spatial Planning and Social Sciences (SSPSS)

11	**Literature:** 1. Alias A. R and Pilouk, M. (2018). Spatial Modelling for 3-Dimensional GIS; Springer, Malaysia. 2. Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods. Sage Publishers, Inc. 3. Davidson J. (2020). Digital Data and Change of Spatial Decision. Granular Venns, UK. 4. Jose A.T. (2018). Spatial analysis, modelling, and planning. 1st Edition, Intech, Risbon. 5. Mayer V. (2013). Bid Data: A Revolution that will Transform How we Live, Work, and Think. Eamon Dolan, New York. 6. Oliver Schabenberger, O & Gotway, C.A (2005) Statistical Methods for Spatial Data Analysis. Chapman and Hall/CRC
12	**Further Information:**

ARU Tanzania – Module 7c: Urban Planning and Management in Tanzania

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd semester	32	320 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Urban Development and Management	L/E (m)	8	3
2	Planning for Resilient Cities	L/E (m)	8	3
3	Financing and Budgeting of Development Projects	L/E (m)	8	3
4	Gender Inclusive Planning	L/E (e)	8	3
5	Integrated Land Use and Infrastructure Planning	L/E (e)	8	3
6	Spatial Data Analysis and Modelling	L/E (e)	8	3

2	**Language of instruction:** English
3	**Teaching content:** • Course 1 covers contemporary urban planning theories and concepts. • Course 2 introduces to climate change and to resilience planning in cities. • Course 3 develops financing concepts, sources of finance, public and private sector roles, local government finance systems, land-based infrastructure financing, and associated economic theories. • Course 4 focusses on gender theories and frameworks and planning with gender perspectives. • Course 5 imparts urban infrastructures facilities and services and integrated land use and transportation plans. • Course 6 introduces to spatial modelling in urban planning, including the 4-Ms process, quantitative spatial analysis, geo-computation, raster and vector data, TIN and DEM models, modelling tools, parameterization, calibration, and validation.
4	**Competencies:** • mastery of different approaches of urban development planning and management • knowledge and skills on the practice of urban planning and management

	• institutional and legal frameworks for urban and regional development planning and management • public-private partnerships in municipal management and governance; • entrepreneurship • managing and planning consultancy services • professional ethics and codes of conduct in urban and regional development planning and management • sustainable technical solutions to the problems of accessibility, flooding, solid waste management, water supply and poor sanitation, particularly in low-income (informal/unplanned) housing • skills to develop efficient and effective policies and strategies to address the problems related to urban and peri-urban land development and management • developing and strengthening skills in gender planning and gender mainstreaming • identifying appropriate tools to develop spatial models for planning interventions
5	**Examinations:** There will be graded written exams related to individual courses. Only course 1, 2 and 3 are mandatory. Out of the remaining 3 electives one course must be taken.
6	**Types of examinations and performances:** Covering the entire module; Relating to individual courses
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Course 1, 2 and 3: mandatory; Courses 4 and 5: select one out of three

10	**Module coordinator:**	**Responsible department:** Ardhi University, School of Spatial Planning and Social Sciences (SSPSS)

11	**Literature:** 1. Cervero, R., Guerra, E., and Al, S. (2017) Beyond mobility: Planning cities for people and places. Island Press, Washington. 2. Elmer, V., & Leigland, A. (2013). Infrastructure planning and finance: A smart and sustainable guide. Routledge. 3. Gatti, S. (2013). Project finance in theory and practice: designing, structuring, and financing private and public projects. Academic Press. London. United Kingdom 4. Healey, P. (2006). Collaborative planning: shaping places in fragmented societies. NY: Palgrave Macmillan. 5. ICLEI (2017), Relient Cities Report, Tracking local progress on the resilience target of SDG 11 6. Moser, C. (1993). Gender Planning and Development: Theory, Practice and

	Training. Routledge, London. 7. Nnkya, T. (2008). Why Planning Does Not Work: Land Use Planning and Residents Rights in Tanzania. Mkuki na Nyota, Dar es Salaam. 8. Simonton, D., Montenach, A., Chalus, E., Koefoed, N. J., Kaartinen, M., Barclay, K., & Worden, N. (Eds.). (2017). The Routledge history handbook of gender and the urban experience. London: Routledge.
12	Further Information:

ARU Tanzania – Module 8c: Urban Planning and Management Workshop

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	3rd semester	12	120 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Urban Planning and Management Studio	P (m)	12	8

2	**Language of instruction:** English
3	**Teaching content:** Preparation and implementation of an urban general planning scheme using strategic planning concepts
4	**Competencies:** • contextual and institutional issues for planning intervention • interest analysis and stakeholders' capacity assessment • sensitization of urban development stakeholders to participate in preparation and implementation of strategic urban development framework • participatory rapid appraisal of urban developmental and environmental issues, preparation of Urban Environmental Profile • citywide Consultative Meeting to identify critical issues • formulation of Issue-Specific Working Groups to address critical issues • preparation of Urban Strategic Development Plan • preparation of Implementation Strategies and Action Plans • project write up for resource mobilization • capacity building strategies for institutionalization
5	**Examinations:** The students produce a written report and corresponding charts and maps. In addition, there are oral examinations (individual and as a group) as well as an individual exam for testing contents and methods employed in the workshop.
6	**Types of examinations and performances:** Covering the entire module: a) Written report, chart, and maps; b) Oral examinations (presentation)
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree in Dar es Salaam

10	**Module coordinator:**	**Responsible department:**

		Ardhi University, School of Spatial Planning and Social Sciences (SSPSS)

11	Literature: 1. Morrison, A. (2020). Citymakers: Exploring Models of Urban Development: Catalytic, Organic, Curated, Allies and Morrison Publishers. London. 2. Ohnsorge, F., & Yu, S. (2022). The long shadow of informality: Challenges and policies. World Bank Publications. 3. URT (2007). Urban Planning Act No 8, Dar es Salaam Printers, Dar es Salaam. 4. URT (2018). Urban Planning Space Standards and Regulations, Dar es Salaam Printers, Dar es Salaam. 5. Roberts, P., Sykes, H., and Granger, R. (2016). Urban Regeneration. Middlesex University, UK
12	Further Information:

ARU Tanzania – Module 9c: MASTER THESIS

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	4th semester	60	600 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Dissertation II	L/E (m)	60	2

2	**Language of instruction:** English
3	**Teaching content:** Students will collect and analyze data, synthesize, and prepare a dissertation report based on the research proposal developed in Semester I. Students will also produce at least one publishable paper manuscript for a journal accepted by ARU.
4	**Competencies:** • determine appropriate planning topic for research • acquire skills for designing a research proposal and appropriate methodology for carrying out the research • apply scientific research methods in carrying out independent research work • masterly of writing and presentation skills
5	**Examinations:** Written thesis assessed individually by several examiners, final mark determined by entire examination committee after oral defense; external examiner from one of the SPRING network partner universities present at thesis defense.
6	**Types of examinations and performances:** Covering the entire module: a) Dissertation Report; b) Viva Voce
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree in Dar es Salaam

10	**Module coordinator:**	**Responsible department:** Ardhi University, School of Spatial Planning and Social Sciences (SSPSS)
11	**Literature:**	
12	**Further Information:**	

UACh Chile – Module 6d: Planning and Research Methods

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	2 semesters	3rd-4th Semester	5	150 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Qualitative Methods in Research	L/E (m)	2	1,5
2	Quantitative Methods in Research	L/E (m)	2	1,5
3	Geospatial Analysis in Planning	L/E (m)	1	0,5

2	**Language of instruction:** English
3	**Teaching content:** This module consists of: • (1) Acquisition of basic and applied skills in research design, execution, report writing and dissemination and communication of its results. Subject content includes: Inductive and deductive reasoning in research; Research design and execution; Quantitative vs Qualitative research techniques; Statistical versus knowledge generalization; Developing a research proposal; Ethics in research; Data sources – library work, sample surveys, questionnaire design, key informant and in-depth-interviews, focus group discussions; Report writing, formatting, and referencing skills; Essence of research; Research process and activities; Roles of research in urban and regional development planning and management; Planning practice; Samples of research agenda in urban and regional development planning and management; Effective research approaches; Validity and reliability in research; Data collection principles; Presenting research results; Techniques for dissemination of research results • (2) Application of appropriate statistical methods and spatial analysis techniques for addressing problems and issues in urban and regional planning • (3) Analysis of spatial data and GIS application. It will be very practical in orientation, especially oriented to the requirements of the Development Planning Workshop.
4	**Competencies:** Students are able to: • (1) conduct empirical research (field work, data analysis, report writing) • (1) select and apply appropriate qualitative methods and content/ discourse analysis for addressing problems and issues in urban and regional planning • (1) apply scientific methods in decision making, policy-formulation, planning and management processes • (2) provide a logical framework for organizing, understanding, and applying the concepts of analysis and interpretation of results • (2) apply basic skills in problem solving

	• (2) use logical thinking and mathematical reasoning • (2) apply statistical methods in specific situations • (3) improve their knowledge of Geographic Information Systems (GIS). They learn to use GIS software and Global Positioning System (GPS) tools for environmental planning and management. They are able to produce thematic maps and relevant overlays for their field work region • (3) manage and use critically statistic and cartographic information in different kinds of reference systems • (3) identify and analyze geographical phenomena and solve problems with help of GIS technology
5	**Examinations:** Graded assignment papers and graded written exam according 6.
6	**Types of examinations and performances:** Covering the entire module; Relating to individual courses: Course 1: Assignment paper Course 2: written exam Course 3: written exam
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:**	**Responsible department:** Universidad Austral de Chile, Facultad de Ciencias Económicas y Administrativas

11	**Literature:**
12	**Further Information:**

UACh Chile – Module 7d: Environmental Management Policy and Economic Development Planning and Implementation in Latin America

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	2 semesters	3rd-4th Semester	7	210 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Decentralized Development Planning in Chile	L/E (m)	2	2
2	Regional Planning and Environmental Management	L/E (m)	2	2
3	Theoretical Foundations of Development Planning	L/E (m)	1	1
4	Regional and Local Dynamics of Development Intervention	L/E (m)	2	2

2	**Language of instruction:** English
3	**Teaching content:** The module contains: • (1) Institutional and practical issues of designing and implementing development policies in Chile and Latin America, as governance structures and institutional reforms associated with decentralization, legislative instruments, and institutional collaboration. • (2) Focus on environmental planning and management privileging an economic perspective. Relationships between regional planning and environmental management are developed and relevant public policies are touched in this connection. The particular problems of common pool resources are handled and the economic pressures on natural resources and vulnerable protected areas are analyzed in the context of sustainability criteria. Regional development in the context of globalization and the environmental problems related with global commons are introduced • (3) Analysis of the limitations of conventional approaches to the problems of development and sustainability. Disciplinarity, interdisciplinarity and multidisciplinarity are discussed and confronted with key problems. Finally, the transdisciplinary approach is offered as the best alternative. The foundations of a Transdisciplinary Economy are proposed, through the principles of Human Scale Development and biophysical indicators for sustainability. • (4) A conceptual framework and methodological approaches to understand local dynamics influencing decision-making and participatory process of

	development planning at regional and local level. This course approaches development planning processes from an actor-oriented perspective which entails understanding the construction of the objects and strategies of intervention as embedded in specific socio-cultural contexts.
4	**Competencies:** Students are able to: • (1) understand the importance of local capacities and institutional settings in decentralized development planning, as strategic factors in regional development • (1) learn how to apply different instruments of planning and tools to design regional planning and development processes and design decentralized development programs based on endogenous potentials and regional identity • (2) understand the theoretical economic framework for analyzing the regional and urban effects of land use change and the available normative instruments to intervene in these processes • (2) learn to interpret the space under pressure and to analyze the changes in the land use patterns • (2) understand the interactions between natural resources, integrated environmental management and sustainable regional planning • (2) grasp the relevance of the global context for regional planning and development • (3) learn the tools for a holistic vision and understand the development problems at the regional level, considering that the conventional approaches are limited and atomized • (4) approach different theoretical perspectives to understand development processes at regional and local level • (4) understand the main conceptual issues for understanding planned intervention from actor-oriented approaches • (4) understand the construction of the objects and strategies of intervention as embedded in specific socio-cultural contexts • (4) understand the importance of qualitative perspectives and research strategies to deal with the study of planned intervention at the local level • (4) elaborate bottom–up interpretative frameworks that broaden the understanding of decentralization and include the intra-regional disparities and rural-urban dynamics
5	**Examinations:** Graded assignment papers and graded written exam according 6.
6	**Types of examinations and performances:** Covering the entire module; Relating to individual courses: Course 1: class participation and assignment paper Course 2: assignment paper Course 3: oral examination Course 4: individual and group reports
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	Module coordinator:	Responsible department: Universidad Austral de Chile, Facultad de Ciencias Económicas y Administrativas

11	Literature:
12	Further Information:

UACh Chile – Module 8d: Development Planning Workshop

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	2 semesters	3rd-4th Semester	12	360 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Development Planning Workshop	L/E (m)	12	12

2	**Language of instruction:** English
3	**Teaching content:** In the second year development workshop, the students engage with a real world case study area, typically a district/province. Over the course of two semesters the students spend several weeks in the district for field studies (interviews, data collection, etc.). Working in groups and guided by the workshop supervisor the students go through the typical planning processes and development issues, combining methods and knowledge of all previous SPRING courses. The workshop will proceed in broad approximation to the ideal planning cycle and to the conceptual and strategic discussion on development directions.
4	**Competencies:** Students will be able to • analyze regional potentials and problems, existing institutional settings, social structure and participation, regional profile in regard to their planning capacities, process of applying public policies and their impact in regional and local level • apply planning methods in the physical and social economic settings and identify problems and potentials as well as interest groups • analyze land use conflicts, regulation problems, environmental problems and natural potential, local capacities and local network, factors of industrial location, institutional management quality, among others • learn to formulate answer and design actions • apply methods in objective setting, and forecasting demographic and economic development • apply planning tools, methods and strategies such as scenario writing according to identified problems and potentials, the design and evaluation of intervention strategies, formulation of objectives, program formulation, priority setting, organization of decisions making process, sustainable development criteria and indicators • translate a broad development concept into concrete action and projects • elaborate project profiles and a plan of operations
5	**Examinations:** The students produce a written report and corresponding charts and maps. In addition, there are oral examinations (individual and as a group) for testing contents and methods employed in the workshop. All of these are graded.

6	**Types of examinations and performances:** Covering the entire module: a) Written report, chart and maps; b) Oral examinations
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:**	**Responsible department:** Universidad Austral de Chile, Facultad de Ciencias Económicas y Administrativas

11	**Literature:**
12	**Further Information:**

UACh Chile – Module 9d: MASTER THESIS

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 semester	4th Semester	36	1080 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Master Thesis	Individual work (m)	36	0

2	**Language of instruction:** English
3	**Teaching content:** The research focus is to be determined by the candidate to master degree in relation with his or her area of interest related to the field workshop areas. The workshop will provide opportunities for students to analyze any areas of interest of regional planning and management.
4	**Competencies:** Students will be able to • demonstrate that he or she is qualified to analyze and to prepare development programs in a systematic and integrated manner • demonstrate how to handle a large amount of data and show how to draw conclusions and how to place them in a broader context
5	**Examinations:** Written thesis assessed individually by several examiners; final mark determined by entire examination committee after oral defense; external examiner from one of the SPRING network partner universities present at thesis defense.
6	**Types of examinations and performances:** Module Exam: a) Final Draft of Thesis (Manuscript); b) Oral Examination (Thesis Defense)
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory

10	**Module coordinator:**	**Responsible department:** Universidad Austral de Chile, Facultad de Ciencias Económicas y Administrativas

11	**Literature:**
12	**Further Information:**

UFABC Brazil – Module 6e: Planning and Research Methods

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 trimester	1st Trimester at UFABC	12	360 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Methods and techniques in territorial planning and management	L/S (m)	6	3
2	Analytical perspectives on Public Policies	L/S (m)	6	3

2	**Language of instruction:** English
3	**Teaching content:** This module consists of two courses covering the following contents: **(1) Methods and techniques in territorial planning and management** General overview on methods and techniques used in planning, such as comprehensive, communicative, strategic, etc., and on methods and techniques of data acquisition, representation and analysis of the territory, including quantitative, qualitative, and spatial approaches. **(2) Analytical perspectives on Public Policies** Local and metropolitan political institutions of Brazil. Public policy and policy cycle: Agenda-setting, policy formulation, policy implementation, and policy evaluation. Policy networks and policy communities, advocacy coalitions, political participation, intragovernmental and intergovernmental coordination. Applications to the Brazilian local, metropolitan, and regional contexts.
4	**Competencies:** The students acquire the ability to • get to know, to evaluate and select conceptual and methodological approaches and techniques in accordance with the specificities of the research object, considering differences among policy issues and challenges for policymaking • prepare and design research proposals and projects for empirical research (field work, data analysis, report writing) • select and apply appropriate statistical methods and spatial analysis techniques for addressing problems and issues in urban and regional planning • apply scientific methods in decision-making, policy-formulation, planning and management processes

5	**Examinations:** Two graded partial exams: Graded written assignment papers and oral presentation for both courses (see below)
6	**Types of examinations and performances:** Partial Exam of Course 1: Assignment papers and oral presentation; Partial Exam of Course 2: Assignment papers and oral presentation
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree in São Bernardo do Campo/São Paulo.

10	**Module coordinator:** Flávia Feitosa	**Responsible department:** Territorial Management and Planning (course 1); Public Policies (course 2) Federal University of ABC, Department of Engineering, Modelling and Applied Social Sciences

11	**Literature:**
12	**Further Information:**

UFABC Brazil – Module 7e: Planning, governance, and public policies for sustainability. Theory and its application for Brazilian metropolitan regions.

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	1 trimester	2nd Trimester at UFABC	12	360 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Planning, governance, and public policies – theory and its application in Brazilian metropolitan regions	L/S (m)	6	3
2	Metropolitan sustainable development in the global South: environment, economy, and social development in Latin American metropolitan areas (with a focus on Brazil)	L/S (m)	6	3

2	**Language of instruction:** English
3	**Teaching content:** This module is aimed at providing a broad overview of the conceptual debates on the relations between planning, governance, and public policies and urban and regional sustainable development. Moreover, the module introduces students to the specificities of these debates in Brazil. The module is divided into two courses: 1) **Planning, governance, and public policies – theories and their application in Brazilian metropolitan regions** • Key dimensions of contemporary planning debates: historical origins; justifications behind planning; the socio-economic and political limits to

	planning; planning styles and cultures; planning processes and products; new challenges in the XXI century • Regional development planning and policies – key theories and narratives; evolution of debates and effective practice • Urban planning, governance and reform (including the dilemma of metropolitan governance) • Governance – evolution of a concept and its assimilation in the Brazilian context: potentials and limits • State restructuring, rescaling and transformations towards multilevel governance • The State, public institutions and Public Policy-Making • Local/regional democracy: Brazilian experiences in public participation 2) **Metropolitan sustainable development in the global South: environment, economy, and social development in Latin American metropolitan areas (with a focus on Brazil)** • Concepts of sustainability and sustainable development • Meanings and understandings of environmental, economic, and social conditions for metropolitan development and planning – a Global South perspective • Environment, economy, and social development in Latin American metropolitan areas • The Metropolitan Question in Brazil and the challenge of sustainability • The praxis of metropolitan planning and sustainability: from centralized to decentralized and insurgent planning in the Global South • Metropolitan challenges related to sustainable development in Brazil • Sustainability and Climate Change under a neoliberal context: the impact on regional and metropolitan planning and governance practices in Brazil
4	**Competencies:** The students acquire the ability to • comprehend the broader theoretical debates on sustainable development, planning, governance and public policies and its implications for state territorial organization and intervention • situate these debates in the context of geographical and historical specificities of the urban and regional development trajectories in Brazil • build up a basic understanding of the institutional dimensions of Brazilian multi-level governance, urban and development planning and public policies that enable effective work on master's dissertations • learn from the Global South sustainable perspectives and practices in urban and regional planning
5	**Examinations:** Two graded partial Exams: written assignment papers and oral presentation for both courses
6	**Types of examinations and performances:** Partial Exam of Course 1: Assignment papers and oral seminar presentations; Partial Exam of Course 2: Assignment papers and oral seminar presentations
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.

9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree at UFABC.

10	Module coordinator: Klaus Frey	**Responsible department:** Public Policies (course 1); Territorial Management and Planning (course 2) Federal University of ABC, Department of Engineering, Modelling and Applied Social Sciences

11	Literature:
12	Further Information:

UFABC Brazil – Module 8e: Workshop on Sustainable Urban and Regional Development

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	3 trimesters	1st-3rd Trimester	18	540 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Planning, governance and public policy for sustainable urban agglomerations – Research at UFABC (1. Trimester)	L (m)	6	2
2	Preparation and Empirical Research/Project (2. Trimester)	L (m)	6	2
3	Empirical Research and Presentations of results (3. Trimester)	L/S (m)	6	2

2	**Language of instruction:** English
3	**Teaching content:** In the development workshop the students engage with a real-world case related to ongoing research projects at both graduate programs, Territorial Management and Planning or Public Policies. During the three trimesters the following activities will take place: • Presentation of ongoing research projects at UFABC – selection of research project in which the students want to develop their empirical research • Familiarization with the selected research project: participation in research group meetings, field research, laboratories; identification of proper research object; research design and proposal – in direct interaction with Module 6e • Conduction of empirical research; in accordance with the interests of the students, these projects can be developed individually or preferably, collectively, involving various students from SPRING and UFABC graduate programs • Presentation of the main results and joint Research Report writing Over the course of three trimesters there will be held meetings of the whole batch of students, guided by the workshop supervisor(s), where the students obtain methodological inputs for their research, present the progress of their research work, and exchange their experiences. However, most of the time they are working on their own research projects in the field within their specific research group. The collaboration or interaction with planners and practitioners from municipalities, regional planning agencies, or non-governmental organizations is encouraged. This course will be tightly related to Module 9e, as these research activities are

	conceived as part of the development of the final master thesis. Moreover, the field studies (involving interviews, data collection, etc.) will provide the students with an important empirical experience about how planning and public policy processes are run in Brazil, relying on the methods and knowledge acquired in the previous SPRING courses in Dortmund and Santo André/São Bernardo do Campo.
4	**Competencies:** The students acquire the ability to • collaborate in ongoing research projects • generate and analyze empirical data for identifying problems and potentials • conduct meetings with key stakeholders of the study area, discussing topics related to urban and metropolitan planning and policies • design strategies and derive feasible projects • engage in goal-oriented, interdisciplinary teamwork
5	**Examinations:** Two Partial Exams Students are required to produce a report on their research activities as well as an extended description of their final master's thesis, including its theoretical framework, the proposed methodological approach, and the initial results. Both the oral presentation at the end of the course and the written detailed research proposal will be assessed and graded.
6	**Types of examinations and performances:** Covering the entire module: Partial Exam 1: Written report with research proposal; Partial Exam 2: Oral presentation
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program.
9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree at UFABC.

10	**Module coordinator:** Sandra Momm	**Responsible department:** Public Policies and Territorial Management and Planning Federal University of ABC, Department of Engineering, Modelling and Applied Social Sciences

11	**Literature:**
12	**Further Information:**

UFABC Brazil – Module 9e: MASTER THESIS

Degree program: M.Sc. SPRING (Spatial Planning for Regions in Growing Economies)

Interval:	Duration:	Study phase:	CP:	Workload:
Every year	2 trimesters	2nd and 3rd trimester	18	540 h

1 Module structure:

No.	Element/course	Type	CP	Weekly contact hours
1	Master Thesis	Individual work (m)	12	
2	Module Exam: Master Thesis defense		6	

2	**Language of instruction:** English
3	**Teaching content:** The master thesis is an independent research work produced by each student individually, yet supervised by one lecturer, eventually with support of a co-advisor. The thesis should deal with a real-world problem considering theoretical and methodological knowledge acquired during the two-year master program. Moreover, the thesis should preferably be concerned with the activities developed during the Workshop on Sustainable Urban and Regional Development (Module 10a), also being possible comparative international studies with cities in Germany or in the student's home country.
4	**Competencies:** The students acquire the ability to • define and operationalize a researchable topic • identify and design appropriate research tools • search and analyze relevant literature • collect and analyze empirical data • derive relevant findings and recommendations • write a scientific thesis
5	**Examinations:** The written thesis is assessed individually by at least three examiners. After the oral defense, the examination board deliberates and decides whether the thesis is approved or not approved. Whenever possible, an external examiner from one of the SPRING network's partner universities should be appointed as a member of the examination board. The defense should preferably be conducted in person; however, hybrid or fully online defenses may be held when necessary.
6	**Types of examinations and performances:** Covering the entire module: a) Master Thesis; b) Oral Examination
7	**Recommended knowledge:** None
8	**Formal requirements:** Successful completion of first year of SPRING program and of at least modules 6e and 7e of the 2nd year at UFABC.

9	**Module type and applicability of the module:** Mandatory for SPRING and 2nd year master degree at UFABC.

10	**Module coordinator:** Klaus Frey	**Responsible department:** Public Policies (course 1); Territorial Management and Planning (course 2) Federal University of ABC, Department of Engineering, Modelling and Applied Social Sciences

11	**Literature:**
12	**Further Information:**