bauhaus ifex IUDD Integrated Urban Development and Design Bauhaus-Universität Weimar Faculty of Architecture and Urbanism

-

Course Catalogue – Summer Semester 2021

Contents

SEMINARS

Module: Introduction to Study Project [1] **2 LVS / 3 CP**
– Compulsory Choice I for ***Thuringian Study Project***
Dr. Julia Gamberini
S European Spatial Planning (119122703)

target group:	Master IUDD
language:	English
time:	Mondays, 11.00 – 12.30 am
location:	https://moodle.uni-weimar.de/
start:	12.04.2021

Content
The seminar "Spatial planning" is part of the module "European cities". It is specifically designed for students of the master program "European Urban Studies, M.Sc." but is open to other master programmes (Urbanistik, IUDD…). The aims of the seminar are to develop an understanding and a wider reflexion of the diversity of planning cultures in Europe through the analysis of models, theories, key concepts and case studies. This seminar proposes to explore and question more thoroughly the challenges spatial planning faces and the answers given. We will raise and discuss some of the following questions: what are the main principles of spatial planning in European countries? What are the main, and somehow contradictory, challenges spatial planning must face (e.g. metropolisation vs. shrinking processes)? To what extent is spatial planning able to maintain social and territorial cohesions and to integrate the sustainability imperatives? What are the political and planning responses and what kind of instruments are developed?

Methods: The seminar methods are mainly based on: Input from the instructor; discussions over key concepts of spatial planning in Europe through articles and case studies; identification and definition of key concepts related to spatial planning; small team works, collective and individual exercises; readings and homework. If you want to attend the seminar, please contact Dr. Julia Gamberini first: julia.gamberini@uni-weimar.de.

Module: Introduction to Study Project [2] **2 LVS / 3 CP**
– Compulsory Choice II for ***Thuringian Study Project***
Dr. phil. Claudius Torp
S Readings in Global Urban History (121123401)

target group:	Master IUDD
language:	English
time:	Fridays, 11.00 – 13.00 am
location:	https://moodle.uni-weimar.de/enrol/index.php?id=31827
start:	09.04.2021

Content
Over the last two decades or so it has become increasingly clear that cities are localities that have been fundamentally shaped by the spatial flows of people and things, information and ideas. We thus need to understand them as translocal places historically conditioned by networks of empire, migration and the global economy. The topics addressed include social and racial inequality, ethnic identities, political activism and urban planning. The seminar will provide an introduction into the developing field of global urban history by focusing on recent scholarship which will be read and discussed collectively. Students will be required to present seminal monographic studies and write a book review.

[1] [2] *Compulsory for Thuringian Study Project: Choice I (*European Spatial planning*) or Choice II (*Readings in Global Urban History*) counted as 3 CP Module "Introduction to Study Project"*

Module: Computational Urban Analysis and Simulation **2 LVS / 3 CP**
*– Compulsory Course for **Ethiopian Study Project***
Vertr.-Prof. Dr.-Ing. Sven Schneider
Dipl.-Arch. Ekaterina Fuchkina
Abdulmalik Abdulmawla M.A.
S + E Parametric Urban Design and Analysis II (119122403)

target group:	Master IUDD
language:	English
time/ location:	Mondays, 13.30 – 15.00 pm, online + Belvederer Allee 1a, Medienpool 003
start:	05.05.2021 (details will be announced in the study project)

Content
Cities are complex human made objects. They consist of thousands of elements and need to satisfy numerous human needs. The definition of urban form (street network, plots, building volumes) and footprint is a crucial step in the planning of cities as it causes long lasting effects on their social, economic and ecological performance. Thus, this step needs to be undertaken with greatest care. In this course we deal with computational methods to support this process. The course extends knowledge and methods you acquired in PUDA I. To study the relationships between urban form and its manifold functions you will learn and train advanced parametric modeling techniques, analysis methods as well as basic knowledge about statistics. You will apply the skills from the course in an urban planning project for growing rural towns in Ethiopia but also relate to the specific environment of Subsaharan Africa (IUDD Study Project "Integrated Planning Strategies for Rural-Urban Transformation in Ethiopia"). It is highly recommended that participants attended the course "Parametric Urban Design and Analysis" the previous semester.

Module: Introduction to Master´s Thesis **2 LVS / 3 CP**
Compulsory
Vertr.-Prof. Dr.-Ing. Sven Schneider
Dr.-Ing. Martin Bielik
S Introduction to Master´s Thesis (119123701)

target group:	Master IUDD
language:	English
time/ location:	Thursdays, online
start:	Will be announced

Content
The preparatory seminar is a combination of various aspects that support students to prepare and organise their master's thesis. It aims to the individual thematic development of the thesis topic. Derived from the subject areas of IUDD the thesis refers to the inductive development of interdisciplinarity. Students are guided through the logic of research, the definition of individual research interest and the more objective need to communicate specific knowledge related to a certain subject of interest. At the end of the seminar, a thesis proposal should be developed based on an adequate research framework and research design, considering methodological aspects and quality of research. This seminar is arranged as intensive workshop with lectures, discussions, exercises and group work.

STUDY PROJECTS

Module: Study Project **12 LVS / 15 CP**
Vertr.-Prof. Dr.-Ing. Sven Schneider
Jun.-Prof. Dr.-Ing. Reinhard König
Dipl.-Ing. (FH) Philippe Schmidt M.Sc.
Integrated Planning Strategies for Rural-Urban Transformation in Ethiopia (119122401)

target group:	Master IUDD
language:	English
time	Thursdays, 09.15 – 18.30 pm,
location:	Bauhausstraße 9c, green:house, Room 004
	& online https://moodle.uni-weimar.de/enrol/index.php?id=31751
start:	08.04.2021

Content
The transformation from a mainly agricultural society to industrialisation that is faced these days in Ethiopia is linked to substantial changes of the country's rural and urban areas. With these shifts, the processes of urbanisation and expectations towards modernisation is seen as a chance to create new and adaptive urban planning proposals that meet specific needs and conditions of the Ethiopian development context in Sub-Saharan Africa. While the World Bank is promoting rapid economic growth for Ethiopia, still the country is one of the poorest countries in the world, and the question arises in how far urban design and planning can create concepts and flexible urban models that are reactive enough to stimulate different scenarios responding for balanced development.

One of the main frameworks to create such a balance for emerging cities are the United Nations Sustainable Development Goals (SDG). Different key factors like food security, energy, water and sanitation are linked to resource questions of material and land and how those can be influential on the development of prospective cities. Thus, for the development of new towns in rapidly urbanizing regions the understanding of material flows and circulation within the urban system is crucial when it comes about any building activity that determines the urban form and what we finally experience as urban, including open and public space and healthy living conditions.

To better understand how such flows of material resources and energy are linked to building activities in rural urbanisation processes and their impact on the existing environment, in our study project, we are referring to urban metabolism as a framework for urban design and planning of small cities (as part of the BMBF/DLR funded research project INUMO). Participants will be analysing urban patterns and flows of small cities, learn about the context between different essential and their spatial implications and apply tools and methods for a spatial analysis and finally implement that knowledge in spatial models and concepts to simulate possible development scenarios that are adaptive and participatory.

Module: Study Project **12 LVS / 15 CP**
Prof. Dr.-Ing. Bernd Nentwig
Shimin Huang M.Sc.
P New Urban Approaches for a smarter and healthier Thuringia (121120201)

target group:	Master IUDD
language:	English
time:	Thursdays, 09.15 – 18.30 pm
location:	Bauhausstraße 9c, green:house, Room 001 & online https://moodle.uni-weimar.de/enrol/index.php?id=31500
start:	08.04.2021

Content
As an integral part of the Horizon Europe framework beginning in 2021, the following five areas have been chosen as EU missions: Adaptation to Climate Change, including Societal Transformation; Cancer; Healthy Oceans, Seas, Coastal and Inland Waters; Climate-Neutral and Smart Cities; Soil Health and Food.

This project is built on the foundation of these EU missions and aims to develop future solutions for a more inclusive, healthy and smarter state of Thuringia.

Planning for urban growth or (re)growth is an objective for many planners and policy makers in our current era. In growing urban areas, investments flow in for securing richer profit margins, developers are attracted by the uprising real estate markets, and young graduates are attracted by various dazzling opportunities to further their careers. However, many European cities are, in fact, shrinking in population and probably will not grow in the near future. As a result, policy makers are beginning to acknowledge that shrinking is inevitable in many cities and must be embraced. Since 1989, around 500,000 people have left Thuringia, and by 2035, 34.4 percent of the population will be 65 or older. When shrinking has become a normality in the state of Thuringia, will Thuringia be fully prepared to be an age-friendly state, able to transform the negative effects of declining population into positive opportunities?

In this project, we are studying why depopulation has been occurring and how it has been impacting the state of Thuringia and its inhabitants. We will also be exploring effective solutions of smart shrinking in terms of addressing demographic, political, and social-economic changes.

We will study the complexity around rural-suburban-urban dynamic in the state of Thuringia with different scales. On the regional scale, we will look at regional planning perspectives in which policy makers and planners come up with cohesive and integrated strategic visions. On the local neighborhood scale, we will look at how these visions will be implemented.

This project consists of two parts: preliminary research and design proposals. You will exercise your research skills with various analytical tools in preliminary research in order to determine effective parameters for the selected EU missions. Based on the preliminary findings, you will develop a scenario targeting particular problems to be solved with urban design proposals.

The overall goal of this project is to invent future solutions for shrinking cities in the state of Thuringia that correspond to the EU missions.

ELECTIVE COURSES

Module: Elective Module **2 LVS / 3 CP**
Jun.-Prof. Dr.-Ing. Reinhard König
S Urban Modeling and Simulation - Advanced (121123302)

target group:	Master IUDD
language:	English
time/ location:	Tuesdays, 15.15 – 16:45 pm, Belvederer Allee 1a, Medienpool 003
start:	06.04.2021

Content
The participants of this seminar are introduced to urban simulation methods. We deal with the modeling of complex spatial systems on the regional and urban level. In this context computational analysis methods for urban fabric (e.g. for pedestrian movement or economic potentials) and models for computing interactions between land uses are introduced. By means of system dynamics models we can simulate temporal changes of "stocks and flows".

Remarks
The knowledge provided through online seminars will be deepened in consultations and documented in several exercises. No prior technical knowledge is required.

Module: Elective Module **2 LVS / 3 CP**
Eng. Mohammed Abdel Aziz Ibrahim Mousa
S GIS for Integrated Urban Development Part II (1211203701)

target group:	Master IUDD
language:	English
time/ location:	Wednesdays, 15.15 – 16:45 pm, green:house, Bauhausstraße 9 C, seminar room 004 + online https://moodle.uni-weimar.de/mod/bigbluebuttonbn/view.php?id=219432
start:	07.04.2021

Content
Geographic Information Systems (GIS) are a useful tool for multiple disciplines and user groups. In urban development and planning, different constituencies like local authorities interact through GIS e.g. applying it in environmental agencies, transportation, energy, resource and waste management, retail, disaster management, and socio-economics. Collecting, managing, analysing and visualising data with GIS as an information sharing tool can help in different stages of planning processes – from identifying problems to evaluating different planning proposals. Working with GIS allows to create easy understandable maps and to enable communication processes.
This course introduces different spatial analysis of Vector and Raster data based on ESRI ArcGIS Toolbox tools. For developing a complex process through different tools, ModelBuilder will be applied to connect different tools and automated workflows based on different variables and parameter. Participants will be introduced to the ModelBuilder interface, proprieties and how to create, run and edit the Model. Various spatial analysis qualifications will be gained such as where to allocate each use/service based on pre-identified criteria.
The course will be assessed based on assignment and final project where participants create their own models and present it.
It is mandatory to be familiar with the basic knowledge of ArcGIS such as creating, editing and dealing with Geodatabases, feature dataset, feature classes, data selection and visualization as it was introduced in part I of the course.

Module: Elective Module **2 LVS / 3 CP**
Prof. Dr. Frank Eckardt, Alicia Sanchez, Marieliz Morales, Jean Ocampo
S Spatial inequalities. Space matters!' (121122805)

target group:	Master IUDD
language:	English
time/ location:	Fridays, 17.00 – 18.30 pm, online
start:	09.04.2021

Content
The existing social and spatial inequalities have influenced and shaped the form of our territories and communities throughout history. As a broad description, spatial inequality can be defined as the mere lack and/or absence of services and unequal distributions of resources in a territory. The consequences of these inequalities can affect directly and indirectly the quality of life of its inhabitants; furthermore, according to the UN, the current Covid-19 pandemic has reflected and increased deep impacts affecting the vulnerable communities the "hitting the poorest and most vulnerable communities the hardest", but have been expanded since the implementation of industrial and globalised models into the cities and territories. In this seminar, we will explore the phenomenon of spatial inequalities using examples of spaces with an industrial, colonial, and post-colonial background. As well as exploring the conditions that continue leading to the fragmentation and segregation in spaces through micro and macro inequalities (e.g urban poverty, gender violence, accessibility to mobility). The seminar also aims to discover different strategies and alternatives that have contributed to tackling said inequalities. The purpose of this module is to contribute to the spatial inequalities' discussion with perspectives from some authors, writers, filmmakers, musicians, narrators, and artists, who have contributed towards the topic in a more versatile shape and form. At the same time, we seek to create a space for learning and exploration on a topic of high importance that converges us all both as students and as an institution.

Requirement prior entry: No requirements to enter the course.
Requirements of fulfilment of the seminar (evaluation): During the seminar, the requirements for completion are a set of papers and a final booklet.

Module: Elective Module

Further courses
can be selected from the university's courses if seats are offered. Please consult the programme coordinator if those additional course offers can be accounted for the grading of electives within your studies.

MASTER'S COLLOQUIUM

Module: Master´s Thesis **2 LVS/ 3 CP**
Academic Staff / BUW Prof.
Master Colloquium

target group:	Master IUDD
language:	English
time/ location:	Block course
start:	Will be announced
registration:	Not necessary, all students accepted and regsietered for the Master examination have to participate in this compulsory colloquium

Content
The Colloquium is the platform for presentation and discussion of the Masters theses. The candidates will present the intermediate results of their work on their individual topics. Suggestions for further investigation in details but also more general suggestions will be made by the academics attending the colloquium as well as the fellow students. The admission for the final Master examination requires the participation in this colloquium and it will be credited (as attestation) by giving a presentation.

MODEL PROJECT FORUM

Module: Model Project
Prof. Dr.-Ing. Bernd Nentwig, Dipl.-Ing. (FH) Philippe Schmidt M.Sc. and guests
Model Project Forum (as result of the Forum seminar)

target group: Master IUDD (compulsory for 2. & 4. semester group)
language: English
time/ location: Thursday, 22. April 2021, starting 9: 15 (full day) / Online

Content
In its study programme "Reflective Urban Practice" the Masters study course "Integrated Urban Development and Design" (IUDD) offers its students outstanding experience at Model Project Partners worldwide. Since 1999 they cover diverse disciplines and fields such as urban design, strategic urban development, urban research, urban planning and architecture. As a final result of the internship semester and the forum seminar, the International Model Project Forum is a full day event that serves the international knowledge exchange among invited Model Project Partners and IUDD students, who present the project they were involved in during the previous semester.