Institut für Regionalwissenschaft

Master’s Programme
Regional Science/
Spatial Planning

Karlsruhe, Germany
Many public measures affecting space, especially large-scale infrastructure projects such as large dams, power plants, roads, railway lines, new cities or new urban quarters rightfully count as impressive engineering accomplishments. In retrospect, however, they often appear to be the result of faulty or incomplete planning. The reason is that they are usually perfectly executed in terms of technical design but fail to take the manifold effects on the local and regional level into account which contradict the envisaged goal.

All planning activity and every public measure occurring in space also affect the regional social systems, the regional economy as well as the complex interplay of regional natural factors, its regional ecology. Thus, planning is also about ascertaining these effects and taking them into consideration when dealing with non-sectoral and co-ordinative planning on the local, regional, and international level.

The goal of the Institute for Regional Science at the University of Karlsruhe is to emphasise this broad approach both in its research and formation. The centrepiece of our formation is the internationally attended and accredited postgraduate Master’s programme of “Regional Science/Spatial Planning”. More than 300 students from all over the world have completed this programme until today and now work successfully in leading and expert positions.

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Regional Science

The first step of investigation in regional science is to analyse the relationship between local and regional (partial) systems considering their sociological, economic, and ecological aspects.

Second, spatial planning needs to be adapted to these systems at two levels of action:
- At the level of comprehensive and co-ordinative spatial planning at which land use schemes are worked out
- At the level of individual planning measures, particularly of large-scale projects and their integration into local and regional relationships

To achieve this, interdisciplinary breadth alone is not sufficient. Every project shows three dimensions of what is called contextualisation:
1. Professional contextualisation beyond its immediate professional field. A public measure affects not only the special field for which it is designed, but will have further-reaching impact in other fields
2. Spatial contextualisation. All planning measures generate spatial effects beyond their immediate project-specific area, with repercussions emanating from those areas and re-affecting the project itself
3. Temporal contextualisation. All planning measures act as a continuation of past changes and have implications for future changes

This subject-specific, spatial and temporal contextualisation supports the analysis of problems from which planning conceptions are derived that take the desired consequences as well as the undesired effects into account. The postgraduate Master’s programme imparts the knowledge basis for this approach and for its exemplary application in the form of study projects.

In this broad approach, this Master’s programme differs from other approaches in regional science which underlie subject-specific or spatial restrictions. It is based on assumption that the tools of regional science (i.e. content, methods and techniques) can be applied in different regions and cultures throughout the world.

The specific conditions prevailing in developing countries as well as in countries undergoing social and economic transformation are taught in separate modules as students from these countries are an important audience addressed by the postgraduate Master’s programme.

Joint work on topical issues in regional science and spatial planning, which takes place in interculturally mixed groups of students, fosters mutual understanding and promotes the exchange of knowledge and concepts – an increasingly vital process for a world moving together.
The Master’s Programme

The study programme has a duration of two years (ie. four half-year study terms) and is intended for full-time study. At completion, the academic degree of “Master of Regional Science” is conferred. Lectures and seminars are credited according to the unified European Credit Transfer System (ECTS) to the amount of 120 ECTS points.

The study programme is structured into modules, with compulsory attendance for modules M1-M9. Among the optional compulsory modules, students will choose at least three modules according to their personal interest.

Compulsary module

Optional modules

Projects

Study project

Field research and Master’s thesis

1st study year

M1 Introduction
- Foundations of regional science
- Introduction to regional analysis
- Community planning

M2 Foundations of spatial information processing
- Production of spatial representations
- Computer-based processing of spatial data
- Methods of GIS

M3 Regional statistics
- Descriptive and inductive statistics
- Probability theory
- Regional statistical key figures
- Analytical tools for regional disparities

M4 Foundations of regional science
- Regional ecology
- Regional economics
- Regional sociology
- Foundations in regional analysis

M6 Practice of regional science research
- Scientific methods and working techniques

2nd study year

M5 Regional planning – methods and instruments
- Planning theory, assessment, decision and prognosis methodology
- Models of government and administration, Planning concepts in an international context

M7 Administrative science, regional management
- Administrative structure
- Models of administrative action
- Regional management
- Co-operative networks

M8 Methods and techniques of regional science research
- Methods and techniques of empirical field research
- Designing and planning empirical surveys
- Research design

M9 Final examination
- Oral examination

Optional modules

M10 Regional problems and planning conceptions in developing countries
M11 Problems of transformation
M12 Current research in spatial science
M13 Water resources and rural engineering
M14 Urban and regional planning
M15 Landscape ecology
M16 GIS
M17 Sociology
M18 International economic relationships
Studying in Karlsruhe

Located in the Rhine plain in the Southwest of Germany between the Black Forest and the Vosges mountains (France), the city of Karlsruhe with its distinct fan-shaped layout dating back to the baroque era was founded in 1715. As a cultural centre of more than regional significance, it is home to two German national courts and has, in recent years, evolved into one of the major technology cities of Germany. There is a wide array of higher education institutions, including, besides the University of Karlsruhe itself (founded in 1825), the University of Education (Pädagogische Hochschule), the Academy of Fine Arts (Akademie für Bildende Künste), and the School of Design (Hochschule für Gestaltung) in conjunction with the Centre for Art and Media Technology (Zentrum für Kunst und Medientechnologie). Approximately 18 % of the 14,000 students studying at the University are coming from abroad.

The University of Karlsruhe is one of Germany’s leading universities. The Institute for Regional Science at this university represents a national as well as international contact point with regard to teaching and research for those who wish to work in regional science and spatial planning or who wish to further their education in this field.

Research

Besides its education and training activities, the Institute for Regional Science also engages in research in the area of regional science and spatial planning, which is frequently done in association with other university institutes and in co-operation with universities and research institutions in Germany and abroad.

The Institute for Regional Science’s foci of research include:
- development of conceptions of sustainable land use at the local, regional, national, and international level
- analyses of urban and regional ecology from which environmentally compatible land use conceptions are derived
- analysis of cross-border, intercultural co-operation and spatial planning
- dynamics of planning networks in different cultures
- a regional science perspective on the problems of countries undergoing social and economic transformation
- analysis of the specific regional conditions of developing countries, regional development research

Close collaboration between university education and research is a hallmark of German universities and likewise of the Institute for Regional Science. Students who demonstrate outstanding performance are given the opportunity to write a doctoral thesis in the framework of a research project and obtain a doctoral degree.
Organisational details

Admission requirements
- Higher education degree (Bachelor’s, at minimum)
- Preference given to applicants with professional experience
- Good knowledge of German language is indispensable

Application deadline
15 July, annually. Admission is for the winter term.

Required documents
- Application form of the University of Karlsruhe
- Certified copies of academic records
- Letter of motivation
- Written proof of German language skills
- Copy of final thesis of the first course of studies

Please send your application to:
Akademisches Auslandsamt
Universität Karlsruhe (TH)
Adenauerring 2
D-76128 Karlsruhe
Germany

Language
The course is held in German; the intention is
- to allow students to make use of the broad study offer at the University of Karlsruhe and the other higher education institutions of the region
- to facilitate students’ integration into the city’s social life
- enable students to do internships at German public planning institutions during their study

Completion of the DSH exam (Deutsche Sprachprüfung für den Hochschulzugang), level 2, or completion of an exam of a similar standard (“Sprachdiplom der Kultusministerkonferenz” level II, „Zentrale Oberstufenprüfung“, TestDaF [twice for level 4 or 5, respectively] or the Großes oder Kleines Sprachdiplom of the Goethe-Institut) is a pre-requisite for admission to the study programme.

Funding
As a rule, students from abroad are only allowed to work up to 40 h/month in Germany, which is not sufficient to completely cover the cost of study.

Depending on the origin and personal aptitude of the applicant, there are institutions through which funding for the course can be obtained. These include the following:
- DAAD - Deutscher Akademischer Austauschdienst (www.daad.de)
- KAAD - Katholischer Akademischer Austauschdienst (www.kaad.de)
- Cusanuswerk (www.cusanuswerk.de)
- Evangelisches Studienwerk (www.evstudienwerk.de)
- Evangelischer Entwicklungsdienst (www.eed.de)
- Alexander von Humboldt-Stiftung (www.avh.de)
- Carl-Duisberg-Gesellschaft (www.cdg.de)
- Konrad-Adenauer-Stiftung (www.kas.de)
- Friedrich-Ebert-Stiftung (www.fes.de)
- The World Bank (www.worldbank.org)
Institute and Teaching Staff

Head of Institute:
Prof. Dr. rer. nat. Joachim Vogt
Head of the Institute for Regional Science of the University of Karlsruhe (TH), course director of the Master’s programme “Regional Science/Spatial Planning”

Besides the head of the institute and the institute’s scientific staff, the following professors of the department of civil engineering, geo- and environmental science are responsible for the compulsory modules.

Prof. Dr.-Ing. habil. Dr. h.c. Hans-Peter Bähr
Head of the Institute of Photogrammetry and Remote Sensing of the University of Karlsruhe (TH)
Responsible for compulsory module 2: Foundations of spatial information processing

Prof. Dr. rer. nat. Dieter Burger
Professor at the Institute of Geography and Geocology I of the University of Karlsruhe (TH), and dean of the study program, “Geo-sciences”, of the department of civil engineering, geo- and environmental sciences
Responsible for compulsory module 4: Foundations of regional sciences

Compulsory optional modules are offered by experienced professors from different departments of the University of Karlsruhe, with the following given as an example:

Prof. Dr.-Ing. Dr. h.c. mult. Franz Nestmann
Dean of the Faculty of civil engineering, geo- and environmental science, head of the Institute of Water and Water Modification of the University of Karlsruhe (TH)
Responsible for optional module 13: Water resources management and rural engineering

Some classes are held by practically experienced visiting lecturers from Germany and abroad. By way of example, two of these are:

Dr. jur. Gerd Hager
Director of the Regional Planning Association of the Middle Upper Rhine
Visiting lecturer for the subject area of Regional and Spatial Planning

Prof. Dr. Wolf-Dietrich Sahr
Professor at the Federal University of Paraná, Curitiba, Brazil
Visiting lecturer for the subject area of International Comparative Regional Planning
Alumni of the Institute for Regional Science can be found in leading positions in science, economy, and society throughout the world. Their network represents a pool of skill and expertise that can be tapped by the alumni themselves as well as by the IfR’s Master students. To do this, there is a broad spectrum of options, ranging from fostering personal contacts, conducting joint transnational projects, or organising special alumni conferences to employing an alumnus as a visiting lecturer.

The alumni network is accessible via the internet at: www.ifr.uni-karlsruhe.de/alumni.html

**Origin of the Alumni**

**Ziyu Ma, PR of China**
Deputy director of the department for economic development at the provincial administration for the development and reform of Hainan.

“During my study in Karlsruhe, I learned many things that I can put to good use in my professional activity.”

**Karin Rüdiger Canaán, Chile**
Co-ordinator for the implementation of the allocation plan, City of Concepción, Chile

“The course has enabled me to deal with planning issues in collaboration with different specialists and officials, discuss the problems and make an active contribution to formulating the solution.”

**Andriarimana Aimé Rasamison, Madagascar**
Head of a research and planning office

“More than anything else, the academic training has added new perspectives that I can use for the management of projects which aim at the sustainable development of my country. I am leading a multidisciplinary team of experts.”

**Gilbert-Honoré Zomahoun, Benin**
Head of the DED section in Burkina Faso

“At Karlsruhe University, I learned a lot of things that I have found for my job and which I am glad I can pass on to the current students. Apart from the learning, studying in Karlsruhe was also great fun.”

**Number of degree holders**

- 1 - 2
- 3 - 4
- 5 - 6
- 7 - 8
- 9 - 10
- 11 - 20
- 21 - 50
- 51 - 106
Come and study Regional Science in Karlsruhe!