Research Master Planning and Sustainability / Urban and Regional Planning

PS URP is an international research master degree in Planning and Sustainability Engineering with specialization on Urban and Regional Planning program.

This Master aims to help students to develop a critical understanding of contemporary planning challenges for cities and urban regions, in the context of climate change and growing human needs. The programme is designed so that students may confront up to date scientific knowledge on planning with their own cultural background and planning experiences. Through the Master, each student becomes familiar with the advantages and limitations of cross-national transfer of ‘good practices’ in the urban or regional policy field.

As a research Master, this program trains students to deal with up to date research issues and methods. It prepares students to start a PhD or to take leadership roles in urban development and management, especially in an international context.

Since it opened, in September 2010, this Master has attracted an average of 15 students per year, coming from the EU countries or from countries neighboring the EU, but also from North America, from Asia, and from the Middle East.
This Master is offered by the Planning and Environment Department of the Polytechnic School, one of the largest planning schools in France, through its staff, its number of postgraduate students, or its number of graduates. The Department is member of the Association of European Schools of Planning (AESOP) and of the French-speaking association of planning schools (APERAU Internationale) and also active within the Global Planning Education Association Network (GPEAN).

The curriculum interacts with researches conducted by the laboratory Cities, Territories, Environnement, and Societies (a unit of the National Scientific Research Council and of Université François-Rabelais). The various research programmes carried out by one of its four research groups - the team “Urban and regional planning projects, landscape and environment”- provide the intellectual environment for the development and the discussion of each student’s individual research. The courses and research topics offered within this Master stem out from research carried out in the following axes: Planning systems and projects, Environmental and landscape dynamics, Risks and vulnerabilities, Sustainable local and regional development.

The PS/URP, empowered as a specialty Master until 2018, was enhanced in 2014 by the addition of a new 30h teaching unit: "Urban Aquatic Ecosystems" (coordinated by Professor Karl Matthias Wantzen, one of the UNESCO Chair "River Culture" responsible). This illustrates a very positive impact of the fusion, in April 2014, between the Planning department and the IMACOF (Ingénierie des Milieux Aquatiques et des Corridors Fluviaux) department, after the authorization for six years delivered by the Engineer Titles Commission of the new specialty in Planning and Environment Engineering.

Contact

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During the first semester, the curriculum is organized around 150 hours of seminars and workshops (30 ECTS).
The second semester is devoted to a research internship of 5 months (30 ECTS). It includes the participation to a seminars and the presentation by each student of the research in progress.

Six Teaching Units dealing with urban and regional issues are offered:

- Teaching Unit 1: Urban and regional issues, planning institutions: a cross-national approach
- Teaching Unit 2: Cities, city-regions and strategic spatial planning
- Teaching Unit 3: Risks, decision making and planning
- Teaching Unit 4: Project, heritage and sustainable development
- Teaching Unit 5: Urban aquatic ecosystems
- Teaching Unit 6: International mobilities of models, complexity and planning process

Four thematic Teaching Units:

- Teaching Unit 7: A methodological seminar, to help each student to design his own piece of research
- Teaching Unit 8: An initiation to the French language and French culture
- Teaching Unit 9: A field trip
- Teaching Unit 10: Research training

Teaching Units 1 to 9 are organized around lectures, but also personal work, which includes reading, writing summaries and essays. Some modules include group work.

Teaching Unit 10 is assessed through the Master thesis.

Detailed content:

Teaching Unit 1: Urban and regional issues, planning institutions: a cross-national approach (3ECTS)
This module is an introduction to the topics and approaches that are dealt with in the other modules. It mixes lectures on the institutional context of planning in Europe and in France, with presentations by students of planning issues in their own country. The module offers a first approach to the cross-national analysis of planning issues and systems, which is to be consolidated in the other modules.

Keywords: Planning systems, institutions, planning practice, comparative studies, cross-national approach, Europe

**Teaching Unit 2: Cities, city-regions and strategic spatial planning (3 ECTS)**

This module provides an understanding of the rise of the notion of city-region. It highlights the connections to debates regarding spatial dynamics in Europe, metropolitan governance and competitiveness. The consequences of the city-region for urban planning theory and practice are discussed through a discussion of strategic spatial planning exercises in various European city-regions, especially in England and France.

Keywords: Territorial competitiveness, city-region, strategic spatial planning, governance, sustainable urban development

**Teaching Unit 3: Risks, decision making and planning (3 ECTS)**

This module focuses on the goals of risks management, defined as a cross-sectors public policy integrating civil security, environmental or health policies. It also defines a territorial approach of hazard mapping and planning as part of a complex urban network system.

Keywords: Flood risk management, structural and non structural measures, flood risk maps, social vulnerability

**Teaching Unit 4: Project, heritage and sustainable development (3 ECTS)**

Heritage approach, territorial growth and sustainable development proceed from different theoretical perspectives and can be oriented by separated practices. The question is: how could they be hybridised within spatial planning and local development projects? The major purpose of this module is to offer a multidimensional and interdisciplinary analysis of the social and cultural environmental questions, at various territorial scales.

Keywords: urban project, heritage, sustainable urban development, energy

**Teaching Unit 5: Urban Aquatic Ecosystems (4 ECTS)**

Most cities have been built near to water sources that today have been channelized, or otherwise strongly modified. Fast growing cities often ignore their waterfronts, resulting in their “marginalization” in ecological and social terms. This module focuses on how open water surfaces can be re-integrated into the planning and management of rural-urban transition zones. Technical examples and socio-ecological challenges are highlighted. This module lasts one week and will be given at the university campus at Chinon (50km off Tours), in co-option with the Guyana Master in Ecology and Sustainability.

Keywords: aquatic habitats, riparian settlers, aquatic ecosystems
Teaching Unit 6: International mobilities of models, complexity and planning process (3 ECTS)
In a world of flux and nodes, the circulation of urban models in terms of spatial ideas and practices contributes, by complex sets of interactions, to a huge evolution urban design principles and regional planning (metropolitanism, territoriality, sustainability, governance…) and to a hybridization of the urban fabric, that question the access to city and the long-term territorial development, especially in the Global South. This module is designed to develop an intellectual framework for the questioning of geography, policy mobility, representation and comparison. Examples and practices will be chosen in your own countries as well as in Vietnam and in India, my major research fieldworks.
Keywords: urban models, access to the city, Global South, spatial practices

Teaching Unit 7: Research methods (4 ECTS)
This module has three interrelated aims: (1) to improve the research skills of students; (2) to help students to plan their own research; and (3) to develop critical evaluative skills in relation to the research conducted by other scholars. It focuses firstly on how to conceptualise a research issue and how to carry out investigations. Second, it proposes methods for conducting a literature review as well as case-studies. It also prepares students to use quantitative or qualitative methods, according to the specific research questions they wish to investigate.
Keywords: research process, research design, methodology, quantitative and qualitative methods

Teaching Unit 8: Field trip (3 ECTS)
The purpose of the trip is to observe various towns, rural areas and natural landscapes, as well as to meet decision-makers in the planning field. This activity will provide students with experiences outside their everyday activities. Students will be involved in planning the actual trip and post-trip activities (including the organisation of an exhibition). The Loire Valley is to offer many specific site visits of cultural landscapes and of urban projects.
Keywords: non-experimental research, observation, photography

Teaching Unit 9: French language and French culture, job training (4 ECTS)
This module helps students of non-French language of instruction to develop language tools necessary for academic integration, but also social and cultural success. On the one hand, it focuses on French and Francophone cultures. On the other hand, it prepares the professional integration after the Master.

Teaching Unit 10: Research training (30 ECTS)
This unit validates the research placement that will be conducted within the research laboratory Cities, Territories, Environment and Societies, and especially the research team “Urban and regional planning projects, landscape and environment”.
A tutor will advise each student and supervise his/her research and seminars will be organised.
Keywords: research methods, research design, methodology
This Master is offered by the Planning and Environment Department of the Polytechnic School, one of the largest planning schools in France, through its staff, its number of postgraduate students, or its number of graduates.

Since it was created in 1969, the Planning and Environment Department has graduated more than 2,400 students.

The Planning and Environment Department is a truly internationally-oriented research and education centre. Besides taking part in numerous cooperation schemes with foreign partners, it is a founding and active member of key international associations in spatial planning, urbanism and environment:

- the Association of European Schools of Planning (AESOP)
- the French-speaking association of planning schools (APERAU Internationale - Association pour la Promotion de l'Enseignement et de la Recherche en Aménagement et Urbanisme)
- ESDP - European Spatial Development Planning network

These networks connect us to the most important research and education centers in planning over three continents (America, Europe, Africa and Middle East).

The Planning and Environment Department also takes part in the Global Planning Education Association Network (GPEAN), which has organized several successful World Congresses of Planning Schools.

Through the above mentioned networks and thank to the the implication of all the staff in the organization of scientific events, the students attending the PS/URP master program have the opportunity to participate to various intensive programs, conferences, seminars, summer schools, as for example:

- the 8th International Conference on Proximity: "Building Proximities in a Global World", Tours, May 2015
- the AESOP 5th EUSS European Urban Summer School on "Heritage Conservation & Urban Sustainable Development", Tours, September 2014
- the APERAU Congress: "To Think and to Produce the City in the 21st Century", Lausanne (Switzerland), 2012
- the Regional Studies Association Global Conference: "Sustaining Regional Futures", Beijing (China), 2012

The PS/URP master program has the support of 23 top-level European Universities, and specifically their
Schools, Departments or Research Units in Spatial Planning, Urbanism, Architecture and Urban Design, Environment and Geography, such as:

- University of West England in Bristol and Newcastle University (UK),
- Technical University of Ankara (Turkey),
- Katholieke University Leuven (Belgium),
- Harokopio University of Athens (Greece),
- University of Hannover (Germany),
- University of Iasi (Rumania).

The PS/URP master program has also strong links out of Europe, notably in:

- India (Anna University and SRM University in Chennai),
- Brazil (Universidade Federal da Bahia),
- Canada (Laval University of Quebec, University of Quebec at Montreal...),
- United-States of America (Florida Atlantic University).

The PS/URP master program has strong links with these partner institutions through incoming-outgoing student and teaching staff exchanges, internships, research seminars, etc.

In addition, the PS/URP master is partner in the European Master in Territorial Development (joint master degree with the universities of Hannover, Bristol, Wageningen, Stockholm and Vienna) and with the PhD program in European Spatial Development Planning (coordinated by KU Leuven).

Equally important for the PS/URP master program is the involvement of its professors in European and International research programs such as the followings among many others:

- CLIMB - Climate Induced Changes on the Hydrology of Mediterranean Basins (FP7),
- DROP - Benefit of governance in drought adaptation (Interreg),
- STARFLOOD - STrengthening And Redesigning European FLOOD risk practices Towards appropriate and resilient flood risk governance arrangements (FP7),
- A cross-national approach on community planning (ESA-AURORA),
- TOWN. Small and medium sized towns in their functional territorial context (ESPON).

This offers wide opportunities for students attending the PS/URP master program for their research internship and master thesis.