

ENSAV Courses taught in English
2017-2018

<u>1st semester</u>	P45 : Metropolis Invisible (I. Taillandier, N. Armengaud) P45 : Chicago (I. Avissar) P45 : Los Angeles (M. Gelin) UEIR1: Scientific Tools of Research (N. Pham) UEIR2: Readings on the theory of city planning (A. Cornet) C45 : Theory of Urbanism & Ecology (G. Azar, J. Boitard)	16 Ects 16 Ects 16 Ects 10 Ects 2 Ects
<u>2nd semester</u>	P45 : Density & Metropolis (K. de Rycke) P45 : Endotic Bangkok (S. Stacher, T. Raynaud) M1 : Energetic Metropolis (I. Taillandier) C2a : Workshop (D. Klouche, I. Avissar) C2b : Towards a meteorological architecture (P.Rahm)	16 Ects 10 Ects 10 Ects 2 Ects 2 Ects
French lessons for foreign students per semester		1 Ects

Master 1

First Semester : (semester 7)

Workshop
 Project
 4th/5th year

P45: Metropolis Invisible
 (I. Taillandier, N. Armengaud)

(16 Ects)

A Thursday night, in the “Grand Paris”, more than 3 million people are working. For whom? How? Where? In which space? We consider the “Grand Paris” as a territory where the invisible can be revealed. By studying, discovering, and physically practicing it, materials for projects will come up. This semester in a special format consisted of 3 stages project, aesthetic actions leading to research and back to design, students will be invited in a didactic way, to discover the invisible part of the city, the instable part of the buildings. The aim is to focus their attention on understanding the dimensions of time and scale, variable perception of the territory through mobility mode, articulations and consequently speed, slowness in planning and architecture equally. For instance, by exploring the night, students will understand the dimensions of time and scale through the prism of a precise assignment. The aim will be to propose a full-scale intervention, by taking over the night to highlight actuality and potentiality.

Workshop
Project
4th/5th year

P45: Chicago
(I. Avissar)

(16 Ects)

In connection with the Biennial of architecture in Chicago this workshop is an opportunity for the students to study: the Loop, the key center of Chicago city. During the 20th century innovative and radical buildings have been created all around the Loop. But beyond the Loop everything has been modified, the density has changed into low size buildings and free zones. In the frame of the workshop, the approach will include the presence of the transport infrastructure. The project will be organized in collaboration with Archeworks school founded by Stanley Tigerman in Chicago and the participation of Odile Compagnon former student of Ensa-versailles and the Professor Jean Castex. This workshop in Chicago will be an opportunity to visit the second biennial of Architecture.

Workshop
Project
4th/5th year

P45: Los Angeles
(M. Gelin)

(16 Ects)

After the return to urban forms of the historic city at the turn of the 70s, the rereading of Manhattan in "New York Delire", 1978 by Rem Koolhaas inaugurated a new way of perceiving the urban: congestion by the programmatic mix and the density. Forty years later, this thought of the city is at the heart of urban projects in major European cities: Hafencity (Hamburg) to Canary Wharf (London) through calls for projects like "Re-invent Paris". Congestion is at the heart of the thought of the city that Fromont described as "programming urbanism". The European territories which are at the same time eroded by development operations mostly escape this thought of the city, and probably any reflection: it is the explosion of the "suburban" which we have seen for almost a century. Under a certain pressure on land, our societies accompany or even encourage loose single functionality features: housing estates, areas of commercial or industrial activities, etc. But the political, economic and ecological stakes are real and numerous: inequality of the territories, problems of displacements related to the automobile, consumption of the agrarian lands, preservation of the landscapes. How to better understand these territories? What are the tools and the imaginary to better understand these urban realities?

**Introduction
to Research**
for Master
dissertation

UEIR1: Research Methods
(N. Pham)

(5 Ects)

The academic community usually recognizes two types of research: The scientific research and the analytical research. Scientific fundamental research is intending to demonstrate a hypothesis considered within a disciplinary field, mathematics, physics, astronomy, biology, etc. It is lead through a selection process in order to obtain an accurate result defined beforehand and conducted accordingly to protocols that demonstrate the relevance and rigor in the selection of indicators. The purpose of analytical research on the other

hand is rather to be exhaustive, opening fields of knowledge and opportunities. It also proceeds on terms and indicators defined by a normative framework and references. A third research field through, philosophic, artistic, architectural still proceeds in another way, by iterations in a system that sets its aim in order to define its internal logic and simultaneously its own critique. The fields of architecture and urbanism borrow partly to Exact Sciences, notably for structural aspects, partly to Human Sciences for its insertion within culture and the question of use for instance. In this course, we will specify and define the conditions of scientific and analytical research from within the modalities of our own architectural and urban discipline.

**Introduction
to Research**
for Master
dissertation

UEIR2: Readings on the theory of city planning
(A. Cornet)

(5 Ects)

Contemporary metropolitan expansion has led to extremely complex urban phenomenon. Looking at cities evolution in the 20th century, we have to keep in mind that 21st century's urban mutation is likely to be equally extreme. The very concept of city has become difficult to grasp and the question of a project is equally uncertain.

This course proposes to explore 200 years of history of European cities through readings of a series of key theoretical texts, trying to grasp the evolution of the very notion of city and gathering tools that will help us better understand the way we can invent an appropriate way of intervening into contemporary urban complexity.

**Seminary
Courses**

C45: Theory of Urbanism & Ecology
(G. Azar, J. Boitard)

(2 Ects)

Theory of ecology

The construction industry is responsible for the intensive use of energy both directly, in the creation of buildings and infrastructure, and directly, in the operational phase.

As well as the carbon dioxide is produced, a variety of other pollution is caused by construction processes and buildings in use.

Thoughtful planning and design can have a major impact on reducing in use and pollution over a building's entire lifetime, especially when considered at early stage of the design process. This course consists in teaching the basics in building physics and environmental design. It aims particularly at identifying the number of sustainable solutions which can provide environmental benefits as well as financial savings.

- Green urbanism
- basics of building physic- Bioclimatic Architecture & solar passive design

Theory of urbanism

This theory of urbanism course will explore five defining moments in the conception of the city from 1945 up to today. It will range from CIAM congress and the four functions up to contemporary conceptions of the diffuse city. For each of these moments it will trace its emergence, explain its doctrines and

designs, and analyses its attitude towards the existing city fabric. The objective is to be able to understand the various theoretical standpoints of the moments and grasp their successive historical significance. Each course will be divided in two parts, each part being followed by selected readings. These key readings will be made available to students for study and discussion in class.

- The functional City: CIAM 1933-1960
- Team X 1953-1974
- Learning from Pop 1968-1976
- The architecture city 1966-1980
- The architecture contemporary OMA 1976-1995

Master 1

Second Semester : (semester 8)

Workshop

Project
 4th/5th year

P45: Density & Metropolis

(K. de Rycke, Kofler)

(16 Ects)

The city as we know it is the result of several different approaches, influences, fluctuations and environments. We can talk about old and new cities (history). We can imagine compact and sparse cities (density). We can discuss Western and Eastern cities (geography). We can think of globalized and secluded cities (infrastructure).

Ignoring the fact whether they are growing or declining, what they all have in common is that they rely on the capabilities of their “foundations”. Cities consist of streets, plazas, gutters, light, (clean) air. These parameters can be defined and controlled. The planning of a city is a technical endeavor.

As urban planners and architects we are used to focus on the built environment, on what is over ground, as this is probably the best perspective when aiming to produce livable areas. At the same time cities are increasingly planned by (public) administrations or (private) corporations, ultimately collecting ever more data in order to have a “smart” response on issues such as waste water treatment, air quality, use, transportation, security, ... The latent absence of architects in the process risks to lead towards increasingly technocratic responses in city planning. In order to reverse this course, we need to start understanding the tools, parameters and languages of the contemporary modi operandi. The best way to achieve this seems to be through learning-by-doing.

In the context of our studio, several protagonists of these themes will explain the different approaches and planning parameters of their work and studies, the data that helps those developing strategies to encounter the future challenges of the city.

Workshop

Project
 4th/5th year

P45: Endotic Bangkok

(S. Stacher, T. Reynaud)

(16 Ects)

Endotic refers to the character of what is opposed to exoticism. By this term, we propose to confront a double entry: the first, clearly paradoxical, is to look at a foreign territory - that of Bangkok – and to avoid pronouncing on its

aesthetic relevance but asking the question of its accuracy, that is to say, of the good reason for its existence.

The second is interested directly (if not exclusively initially) in architectural matters starting from the deliberately laconic postulate that architecture manifests itself permanently by an act of separation. An act finally and relatively simple but powerful enough (for better or for worse) to organize the world or to represent a world. To accept this axiom requires to practice it with intention, to measure and even to demonstrate how to practice it, here and now.

Master M1 : Energetic Metropolis (10 Ects)
Dissertation (A. Feraru, N. Pham, L. Morand, I. Taillandier)

This seminar places the energy transition and its effects on architecture and urban and territorial space in the heart of research. Starting from what Edgar Morin calls "the dialogical principle", he postulates the dialogue between two or more notions that were thought of separately in the fossil era: polycentric city-compact city, slow city-fast city, city of individuals- shared city, planned city-unplanned city, production-use-recycling, energy efficiency-renewable energy ...

Seminary C2a : Workshop (2 Ects)
Courses (D. Klouche, I. Avissar)

The aim of this course is to support the Master cycle of conferences held every week in the second semester in order to build a cultural background on contemporary issues of urban society today. We select themes that allow to see, to understand and to bring out the fruitful relationships that increase between the fields of: Architecture, Cities and Metropolis. These relationships can be built around several topics: theories, visions, the question of scales, governance and obviously the design project.

Seminary C2b : Theory of Ecology (2 Ects)
Courses (P. Rahm, J. Boitard)

Part I - Building Physics and Environmental Design, J. Boitard: 16h

The construction industry is responsible for the intensive use of energy both directly, in the creation of buildings and infrastructure, and indirectly, in the operational phase. As well as the carbon dioxide which is produced, a variety of other pollution is caused by construction processes and buildings in use. Thoughtful planning and design can have a major impact on reducing energy use and pollution over a building's entire lifetime, especially when considered at the early stages of the design process.

This course consists in teaching the basics in building physics and environmental design. It aims more particularly in identifying the number of sustainable solutions which can provide environmental benefits as well as

financial savings.

Part II – Constructive thinking and contemporary architecture, P. Rahm: 16h

Climate change is forcing us to rethink architecture radically, to shift our focus away from a purely visual and functional approach towards one that is more sensitive, more attentive to the invisible, climate-related aspects of space. Slipping from the solid to the void, from the visible to the invisible, from metric composition to thermal composition, architecture as meteorology opens up additional and more sensual, more variable dimensions in which limits fade away and solids evaporate.

The task is no longer to build images and functions but to open up climates and interpretations. At the large scale, meteorological architecture explores the atmospheric and poetic potential of new construction techniques for ventilation, heating, dual-flow air renewal and insulation. At the microscopic level, it plumbs novel domains of perception through skin contact, smell and hormones.