

SPRING SEMESTER (M1.2/I4.8)

URBAN PLANNING & CONSTRUCTION

LILLE CAMPUS

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Prerequisites

 Bachelor's Level - materials science, structural mechanics and finite element analysis, heat transfers, electrokinetics & electronics, project management, design, methods and industrial organization

Note that as lectures and case studies for industrial partners are mostly conducted in French, having a good level of French is recommended.

Assessment

- Regular progress reports and consultation
 - Conference and practicals reports
 - Technical and project reports
 - Project oral and written presentation

Partners

Partner companies who deliver lectures/conferences or mentor case studies.

Soreli / Voltaik / Bouyghes construction / Vinci construction / Ramery bâtiment / Edwood / Académie de Lille / Greta Lille métropole / Wienerberger

OBJECTIVES

- Acquire knowledge in urban planning, and construction and real estate regulations
- · Structural and thermal building construction
- · Construction site organization

TARGET PROFESSIONS

• Engineer in project management and technical studies office, foreman/site management

PROGRAM

Lectures/Conferences

Mainly held by industry partner representatives:

• Industry insights: experiences, problem situations

Building and construction

- · Urban planning and stakeholders, markets...
- · Land and planning regulations (licenses, permits, etc.)
- · Architectural design framework

Real Estate Setup and Monitoring

- · Organization of a real estate transaction
- Call for tenders

Implementation, Construction Principles

- · Construction and materials terminology
- Stability of Structures
- Structural work techniques
- Concrete and wood constructions

Energy and Environment

- Energy efficiency in buildings, thermal regulation RT2012
- European label: passivhaus
- Airtightness and thermography

Construction Site Organization

• Pre-site organization, operational site organization

Innovation

Building lifecycle analysis

Practicals & Case Studies

- Implementation of building thermal software
- · Passive design, 3D construction, BIM

Typical Project(s)

Mainly with industrial customers

• Territory development, Building Renovation...

Competencies

Carry out a scientific approach to:

- Implement construction methods
- Perform building thermal calculations
- Understand and respond to customer needs