Master of Science
Urban Agriculture and Green Cities
SKILLS

01/ Gain the technical skills required to integrate multifunctional and innovative horticultural projects into urban development plans, building standards and project architectural design.

02/ Gain and/or broaden skills to manage multidisciplinary teams, particularly planning, leading, coordinating, working in a team and organizational skills.

03/ Be able to develop a broad vision of the challenges inherent to urban agriculture and horticultural projects in cities at all project stages, both in terms of diagnostics and proposal development, by demonstrating analytical and concise thinking.

MASTER OF SCIENCE URBAN AGRICULTURE AND GREEN CITIES

With the likelihood of cities being denser by 2050, it is becoming essential to take a broader view of sustainable development when it comes to urban planning. In this context, urban agriculture is becoming a key component of nature in the city and brings numerous solutions to the problems of humankind — overcrowding, shortage of agricultural land, climate change, etc.

CONTEXT

The MSc in Urban Agriculture and Green Cities aims to train future managers in urban agricultural and horticultural jobs according to an innovative and broad-based approach to planning, development and sustainability.

The course has been designed to equip future graduates with the necessary tools and hybrid skills to develop in the public and private professional fields responsible for designing, implementing and monitoring innovative and multifunctional agricultural and horticultural projects in cities.

Today, the capability a city has to implement biodiversity and plant restoration strategies raises many questions, mainly linked to how to design coherent, effective projects that incorporate the following five key principles:

- Local, organic and high-yield food production
- Production and optimized use of renewable energies
- Rain and gray water reclamation and reuse
- Waste recycling
- Energy-plus building construction

The purpose of introducing the Master of Science in Urban Agriculture and Green Cities is to design, implement and follow up projects based on agriculture and horticulture in cities, combining agronomic, architectural, environmental, energy, economic and social concerns.
COURSE STRUCTURE

The MSc is taught in English and lasts 18 months. It can be proposed as a semester of study abroad.

First semester: from October 1st, 2018 to February 1st, 2019
Second semester: from February 2nd, 2019 to May 20th, 2019

KNOWLEDGE ACQUISITION

Agronomy and biology students
- Urban planning: urban design, plans and projects
- Public areas: mobility and infrastructure

Architecture, planning and landscaping students
- Plant biology, botanics
- Cultivation techniques, substrate, water cycle

URBAN AGRICULTURE
- Concepts and principles for urban agriculture
- Cultivation techniques for the city: greening buildings, urban farms, multifunctional urban micro-farms, soilless cultivation, urban greenhouses

URBAN ECOLOGY
- Environmental engineering: concepts, principles and applications in cities
- Biodiversity and green spaces: the principles of ecological management

URBAN FOOD SYSTEMS
- Food safety for the city
- Distribution channels
- Standards and health safety

URBAN DESIGN & DEVELOPMENT
- Urban planning strategies: sustainable cities, ecological footprint, sustainable mobility
- Landscape planning: practices, patterns and movements
- Ecodesign, green infrastructures

SMART CITIES & ECO-INNOVATION
- Digital cities and urban resilience
- Energy performance of buildings
- Circular economy and urban development
- Urban water management

LAND & TESTING
- Materials & construction
- Approaches to energy
- Water supply systems

URBAN SOCIOLOGY
- Participative planning
- Urban agriculture and cities in transition

REGULATIONS
- Urban planning law
- Environmental law

PRODUCTION & VALUE CHAIN
- Value chain of urban food systems
- Production and local economic development

INNOVATION MANAGEMENT
- Project management and organization
- Professional urban agriculture (how to become an entrepreneur: lean startup, finding a co-founder)

GEOGRAPHIC INFORMATION SYSTEMS
- Processing, analysis and management of spatial and geographical data

SELF- AND GROUP AWARENESS
- Team building
- Participative management
- Languages

INTERNSHIPS AND ASSIGNMENTS

- Six-month internship in a company
- Two four-week company assignments, supervised by professionals

CREDITS

90 ECTS credits, broken down as follows:
- 30 ECTS for the first semester
- 30 ECTS for the second semester
- 30 ECTS for the internship and the professional thesis

CAREERS

- Project manager in urban agriculture and plant innovation
- Project manager or consultant in ecological planning
- Research engineer or project manager in eco-innovation and regeneration of urban areas
- Development officer in sustainable urban planning
- Consultant in sustainable development
- Project manager in a local authority, urban planning or environmental department or development agency
In my view, urban agriculture as part of a broader sustainable planning strategy (“green cities”) has a huge number of benefits, not least because it provides a means of restoring the link between city-dwellers and nature. It can also go some way to addressing the problem of climate change, which is aggravated by the long distances traveled by our food products before they arrive on our plates. Of course, the fact that my school was the first to launch this type of Master’s makes it a real pioneer in the field! The program lasts for 18 months. Students take a range of varied, complementary courses on urban planning, architecture, ecology, food systems and of course urban agriculture, which give them the skills they need to imagine, remodel and design the cities of the future. Another strength of the program was the opportunity to create and work on several projects during the course.

Martin Hemery, 2017 graduate
UniLaSalle – Rouen campus

During a year abroad in the Netherlands, I had the opportunity to take a Bachelor in Urban Dynamics course. This program looked at how urban agriculture is incorporated into the dynamics of sustainable cities. I was keen to focus more closely on the issue of sustainability in urban environments, so I decided to complete my internship in a startup that specializes in designing corporate software to manage energy consumption in buildings. These experiences made me even more determined to specialize in urban agriculture and how it can be integrated into sustainable urban planning. So when I came back to France, I enrolled on the Master of Science in Urban Agriculture and Green Cities, a broad, varied program that explores questions which really interest me and which I hope will become the basis for my future career. The strengths of this program are the opportunity to interact with professional stakeholders, specialists and designers in urban innovation, and the chance to go on field trips and complete company assignments.

Audrey Le Roux, 2017 graduate
UniLaSalle – Rouen campus

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