



FORESTS

AND THEIR



ENVIRONMENT



A 2nd-year international

MSc major

Nancy, FRANCE



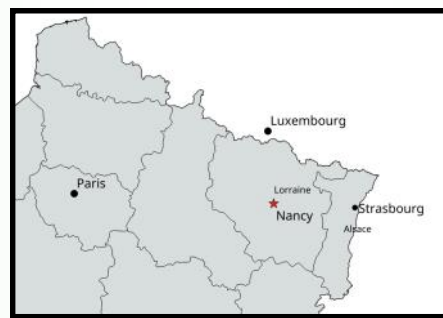
Decipher the functioning and dynamics of temperate forest ecosystems and develop quantitative tools for their sustainable management in a context of global environmental changes...



Joint MSc program of
Université de Lorraine &
AgroParisTech

Want to study abroad in Europe?

Come to Nancy !



- ✓ An urban area of 400 000 inhabitants and 50 000 students (Université de Lorraine and 10 Engineering schools)
- ✓ Easy access from Paris by TGV (high speed train), and close to Germany, Belgium, and Luxembourg
- ✓ Nancy has a great architectural history (part of the UNESCO World Heritage) including the *Art Nouveau* period, and is surrounded by forests and hills ideal for recreational activities
- ✓ Many cultural and entertainment events all year round (e.g. *NJP Jazz festival*, *le Livre sur la Place* book fair)

More info at: www.nancy-tourisme.fr



European/International partnerships

- * Université de Lorraine, AgroParisTech and INRA are members of the **NFZ forest network** (Nancy–Freiburg–Zürich) for higher education and research (www.nfz-forestnet.eu)
- * AgroParisTech belongs to the consortium **Erasmus Mundus MSc European Forestry** and offers the major *Forests and their Environment* as the educational support for the 2nd year (<http://www.uef.fi/en/web/mdp-europeanforestry>)
- * INRA and AgroParisTech are members of the **European Forest Institute (EFI)**
- * International network opportunities further arise from **international research collaborations** at Université de Lorraine, AgroParisTech and INRA



Forests and their Environment

Concept and objectives

This MSc major (M2) offers a broad perspective and in-depth training on the functioning and dynamics of European forests, providing a basis to address challenges arising from environmental constraints and forest management.

The objective is to prepare for 1) **professional careers in R&D or expert positions in the environmental diagnosis and management of forest ecosystems** in private/public national/international institutions, 2) **scientific careers in research institutions conducting programs in forest ecology and management**.

✓ **An introductory session** gives an overview of European forests and the major issues related to their management.

✓ The core of the major provides **fundamental and applied knowledge on the functioning and dynamics of forest ecosystems** and communities, including tree physiology, biogeochemistry and ecology.

✓ **A “tools & methods” session** provides knowledge and training on the **main quantitative tools used in ecosystem diagnosis and experiment analysis**, including GIS, statistics, and modelling.

Institutional framework and connection to research

The MSc program provides a **research-driven approach** to the understanding and management of forest ecosystems. The teaching staff includes more than 30 professors and senior scientists from 9 research labs at Université de Lorraine (UL), AgroParisTech and Institut National de Recherche Agronomique (INRA, www.nancy.inra.fr).

In addition to the balance between fundamental and practical knowledge, **practitioners from organizations involved in forest management and R&D** will also provide a connection to forest management issues, and ensure both a professional and academic education.



Master curriculum

The first semester (S9) includes **9 training units** for a total of **30 ECTS credits**. Training units are as follows:

Fundamental and applied knowledge

- 1) *European forests, sustainable forest management, certification*
- 2) *Understanding tree structure and functions*
- 3) *Biogeochemical cycles in forest ecosystems*
- 4) *Dynamics of forest plant and tree communities*
- 5) *Forests and forestry in a context of global change*

Tools and methodology

- 1) *Project in forest management*
- 2) *Advanced statistics or GIS for forest science and forest ecology*
- 3) *Models in forest management*
- 4) *Forestry wood-chain tour*

The second semester (S10) consists of an **internship of a duration of >20 weeks** evaluated through a written dissertation and an oral defence for **30 ECTS credits**. The internship takes place either in a research laboratory or in institutions, companies or associations of relevant fields of application. Internships can be proposed by students.



Application and Admission

The *Forests and their Environment* major seeks to recruit 15-20 students on selective bases.

Depending on their education, applicants should justify a **1st-year MSc level (M1) or a master's degree or equivalent (M2)**, as acknowledged in the EHEA (European Higher Education Area), and educational background in the fields of **forestry, plant science, ecology, ecophysiology, or environmental science**.

A **B2 level in English** is required. See the self-assessment grid of Common European Framework of Reference (CEFR) at: <https://europass.cedefop.europa.eu/en/home>. **Equivalent qualifications are: IELTS >5, TOIEC >700, TOEFL IBT > 90, or Cambridge FCE.**

Applications should include 1) the **Europass documents** (<https://europass.cedefop.europa.eu/en/home>), 2) **marks** obtained in the **previous educational year**, 3) a **letter of application**, and 4) **one letter of recommendation from a senior professor/scientist** of earlier educational courses/internships.

Contact and Information

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