

## Discovering ENSTIB

The only national public school, which trains engineers in the wood sector







## ENSTIB is located in Epinal, in the heart of the Vosges









# The Vosges

- 280,000 hectares of forest
- An afforestation rate of 48% (3rd department)
- Vosges : Nearly 13,000 jobs from the forest (from production to processing)
- Region : 11,000 companies with 55,000 employees







## In the heart of the University of Lorraine





#### **15000** m<sup>2</sup>



35 teacher-researchers30 administrative, technical and BU90 industrial stakeholders

4000 graduates since 1985



12 degrees 6 double degrees



1 Forest-Wood sector

Ф.

- 4 Sectors of activity
- 3 laboratories
- 2 technical centers



graduate association
student associations
activities





**INP** Enstib

ENSTIB Engineer

Dual degree

Master's in Forestry

Master's in CSE\*

Master's in MBA\*

Master's in EPM\*

Agro-REssources

Master's in BioWARE\*

wood construction

\*Complex Systems Engineering

Master

3

4

5

6

8

10

11

LORRAINE





Dual degree – UQAC Postgraduate diploma in project management Postgraduate diploma in eco-consulting

5





- LERMAB, specializing in wood and bio-based materials
- **CRAN**, focused on automation and intelligent systems
- IJL, an expert in materials science.







 CRITT Bois, an expert in the recovery of wood materials and processes



• CETELOR, which specialises in research on textile fibres.







#### Teaching and research fields at wood campus

Digital engineering - BIM

Image processing and characterisation



#### Green process for wood valorisation



Materials derived from plant resources



Thermal and energy engineering of buildings



Wood for energy



Machining processes - robotics & CNC





Traceability and optimisation of supply chains



Structural mechanics



UNIVERSITÉ DE LORRAINE 7



### **OUR WOOD TRAINING COURSES**



The major sectors covered by ENSTIB graduates include construction, layout and design of living spaces, energy, bio-based materials, industrial production and logistics, energy production but also for all other sectors or industries seeking innovative engineering materials.











The student receive comprehensive training that includes technical knowledge of timber construction or wood processing , as well as courses in management, economics, and humanities. The training programme lasts one year

This level degree provides all the necessary skills to take on positions of responsibility in secondary wood processing companies

we offer also the wood expertise option for students wishing to continue their engineering training







The course is characterised by its multidisciplinary approach which means our engineers can easily enter any field of the wood sector. The first 2 years constitute the core content of the engineering course, whereas the first semester of the 3rd year consists in specialisation subjects

Over 90% of ENSTIB graduates work in wood related sectors and the average time to find a first job is under one month.





#### Placement of engineering graduates in 2023



Average time to access 1st job

- 9 days

Further studies 4% Ph.D



Geography 95% in France

€

Annual Gross Salary **36.055 €** 



Employment in the forestry and timber sector **96%**  PLACEMENT **de nos étudiants\*** (EN%)

\*statistiques effectuées à partir des réponses de la promo 2024

Construction : 51% Organismes, études, conseils : 10% 1<sup>ère</sup> transformation : 4% Ameublement : 6% Formation, enseignement recherche : 5% Forêt : 6% Bois énergie : 1% Menuiseries : 6% Autre : 11%











This Master aims to enhance collaboration between engineers and architects to optimise the design and cost-efficiency of projects.

It enables architects and engineers to acquire dual expertise through an original training programme focused on the techniques of using wood in building construction.









The aim is to train high-level specialists to be immediately operational in the design and dimensioning of major works built for a large part in wood (blocks of flats, engineering structures, sports buildings, etc.).

This course is aimed at students who already have a civil engineering degree





An international outlook

#### 40 international educational cooperation agreements, for a onesemester mobility or a gap year,

in Europe, Africa, North America and South America.

Austria, Belgium, Brazil, Canada, Chile, Côte d'Ivoire, Czech Republic, Finland, Germany, Luxembourg, Poland, Portugal, Senegal, Slovakia, Scotland, Spain, Sweden, Switzerland...









**Offers/news for Exchange students (English)**:

- ERASMUS Semester (30 ECTS): Wood anatomy, wood for energy, wood preservation in construction, chemical applications of wood,...
- Master in biotransformation BioWare (1 year; 60 ECTS; 100% English)
- Master internships in wood sciences (Timber engineering, energy, wood recycling, robotics ...)
- Short term specialization (M2 level) in green processes, timber calculations, ...
- Virtual Wood university master program (under construction)







Master 2 level: Biorefinery Engineering of Wood and Agro-ressources (BioWare)



Detailed courses content :

https://ensaia.univ-lorraine.fr/fr/content/master-bioware



Application : <u>master-bioware-contact@univ-lorraine.fr</u>



### Wood sciences and technology

#### Semestre 1 / Wood forest sector / Wood materials course

PFE (6 ECTS) / Thematic research project (proposed by a company or a laboratory).

UE 5.3 (8 ECTS) MOOC Wood anatomy + M2 Structure and anatomic properties + M3 Chemical properties

UE 5.4 (5 ECTS) M1 Chemical thermodynamics and kinetics + M3 Introduction to combustion

UE 5.5 (7 ECTS) TP Products representation and process engineering (5.5 M3)

TP communication specific (4 ECTS)



#### **Interested ? Go here:**

https://www.enstib.univ-lorraine.fr/en/international-school/coming-to-study-at-enstib/





### Wood sciences and technology

Semestre 2 / General use of wood

UE 6.1 (6 ECTS) M2 Management and communication

UE 6.2 (9 ECTS) M1 Biological wood degradation and preventive solutions + M2

Finishing

UE 6.3 (9 ECTS) M1 Assessment + M2 Fluid Mechanics

UE 6.4 (7 ECTS) M1 Wood mechanics and regulation

UE 6.5 (6 ECTS) TP Design and Process Implementation

(6.5 M4)



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#### Studying at ENSTIB means being able to get involved in a rich and friendly community life







- Wood and bio-based materials: development of new materials, chemical recovery of bioresources, biorefinery,
- Energy and Environment: biomass energy recovery, effluent treatment,
- Eco-design: circular economy, life cycle assessment,
- **Construction engineering:** building thermals, structural sizing, building project management,
- **Production and industrialization:** Production systems engineering, digital engineering for decision support, logistics,
- Organization of the company: corporate strategy, marketing, management.





#### **Restons connectés !**







