GREENING ENERGY
MARKET AND FINANCE
OPEN DAY
Who we are

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A new shape of Finance

GrEnFlIn proposes a new role of finance as a facilitator of the transition process. Finance is recognized to be pivotal for the sustainable transition. We ethically reshape its goal into a societal service for the common good.

The Master proposes an innovative and interdisciplinary educational path targeted to the

Sustainable Energy Expert, expected to be the Hero of the Green Economy.

- **INTERDISCIPLINARY PATH:** engineering knowledge, quantitative skills, economic-business competences
- **INNOVATIONS:** Innovations in methodologies and contents.
- **SYNERGIES WITH THE BUSINESS WORLD:** GrEnFlIn Master is our answer to the stakeholders’ needs. The structures comes from a co-designed project agreed with academy and business world.
Overview of the GrEnFIIn Master Structure: an Interdisciplinary Path

PREPARATORY
CORE COURSES
36 ECTS

CORE PROGRAMME in CLIMATE&POLICY
LAW (6 ECTS) AND CLIMATE RISK (6 ECTS)

SEE in RENEWABLE TECHNOLOGIES
42 ECTS

SEE in ENVIRONMENTAL FINANCE
42 ECTS

SEE in CLIMATE&BUSINESS
SCIENCE
42 ECTS

INTERSHIP 12 ECTS
FINAL THESIS 18 ECTS
First semester: Preparatory Core Courses (36 ECTS)

RISK MODELLING AND PROBABILITY (12 ECTS):
- Introduction to probability and the mathematics of risk (6 ECTS)
- Risk modelling and evaluation (6 ECTS)

CLIMATE-RELATED RISK AND COMMODITY MARKET (12 ECTS):
- Climate and transition risks: uncertainties, complexity, and implications for economic and financial dynamics (6 ECTS)
- Commodities and Energy Markets: interactions with climate policy (6 ECTS)

FINANCIAL MARKET & CLIMATE CHANGE: PRICING/HEDGING AND ASSET MANAGEMENT (12 ECTS):
- Mathematical Finance, Asset Pricing, Derivatives (6 ECTS)
- Asset Management and Transition Risk (6 ECTS)
Between the 2\textsuperscript{nd} AND 3\textsuperscript{rd} SEMESTER: Core courses (12 ECTS)

4\textsuperscript{th} SEMESTER: Internship (12 ECTS) and Final Thesis (18 ECTS)

INTERNATIONAL LAW AND SUSTAINABILITY (6 ECTS)
CREDIT AND WEATHER DERIVATIVES (6 ECTS)

INTERNERSHIP (12 ECTS)
FINAL THESIS (18 ECTS)
**SEE in Renewable Technologies**

Here we have focus on the **sustainable engineering technologies**. Students will increase their knowledge in **Renewable Energy and Climate** and also gain **financial and economics tools** that can help to have a 360 degrees vision about the energy market and the implication of the transition process in term of increased risk.

**SEE in Environmental Finance**

Students will increase their knowledge in **risk and financial management associate to climate**. The competences in **financial engineering** allow to design contingent claims ad hoc able to provide useful hedging strategies.

**SEE in Climate&Business Science**

Students will gain a deep **economic perspective of the energy transition process** and will be able to identify the best way to manage it. The main subject will give the student deeper understanding of **Climate science, prediction and mitigation strategies**.
Different specializations

**RENEWABLE TECHNOLOGIES TRACK**
- **Related Courses (30 ECTS)**
  - Climate System and Climate Change (6 ECTS)
  - Smart Grids for Smart Cities (6 ECTS)
  - Solar & Wind Energy and Storage Systems (6 ECTS)
  - Python coding and data science (6 ECTS)
  - Machine Learning and AI (6 ECTS)
  - Summer/Winter school (6 ECTS)
  - Summer/Winter Training (3 ECTS)
  - Intensive Programme (6 ECTS)
- **Electives (12 ECTS)**
  - Hydraulic and Bioenergy (6 ECTS)
  - Corporate Finance (6 ECTS)
  - Financial Risk Management (6 ECTS)
  - Statistical Methods for asset management (6 ECTS)
  - Economics of financial market and sustainable perspectives (6 ECTS)
  - Advanced Mathematical Finance (6 ECTS)
  - Advanced methods for risk management (6 ECTS)
  - Computational Finance (6 ECTS)

**ENVIRONMENTAL FINANCE TRACK**
- **Related Courses (30 ECTS)**
  - Climate System and Climate Change (6 ECTS)
  - Smart Grids for Smart Cities (6 ECTS)
  - Python coding and data science (6 ECTS)
  - Advanced Mathematical Finance (6 ECTS)
  - Summer/Winter school (6 ECTS)
  - Summer/Winter Training (3 ECTS)
  - Intensive Programme (6 ECTS)
- **Electives (12 ECTS)**
  - Advanced methods for risk management (6 ECTS)
  - Computational Finance (6 ECTS)

**CLIMATE BUSINESS TRACK**
- **Related Courses (30 ECTS)**
  - Climate System and Climate Change (6 ECTS)
  - Economics of financial market and sustainable perspectives (6 ECTS)
  - Smart Grids for Smart Cities (6 ECTS)
  - Python coding and data science (6 ECTS)
  - Summer/Winter school (6 ECTS)
  - Summer/Winter Training (3 ECTS)
  - Intensive Programme (6 ECTS)
- **Electives (12 ECTS)**
  - Corporate Finance (6 ECTS)
  - Financial Risk Management (6 ECTS)
  - Statistical Methods for asset management (6 ECTS)
  - Economics of financial market and sustainable perspectives (6 ECTS)
  - Econometrics of financial markets (6 ECTS)
  - Machine Learning and AI (6 ECTS)
  - Advanced methods for risk management (6 ECTS)
A brick composition of the educational path

The GrEnFlIn educational Path can be tailored on the interests of students:

- **ENTRY BRICK**
- **BASIC TECH BRICK**
- **INTERMEDIATE/ADVANCED BRICKS** (CURRICULA)
- **CLIPOLICY BRICK**
- **GRADUATION BRICK**

A number of electives are offered inside every curriculum.

GrEnFlIn offers a flexible educational path to be tailored by students
A strong connection with the industrial/business world

- The GrEnFIn master is our answer to the stakeholders' needs: from the GrEnFIn project survey to a worldwide needs analysis and finally to the definition of the learning outcomes and the draft of the educational path.

- L and SMEs are partners of GrEnFIn project: relevant and innovative contribution in terms of contents (frontier topics) and methodologies (teamwork based on real cases) during the testing and piloting phases.

- **Summer/Winter School and Training** based on case studies and team projects.
- **Intensive Programme** with IT Lab focused on frontier topics.
- 300 hours of **curricular Internship** to practically approach the real problems.
- **Double supervision of the final Thesis:** an academic and an industrial supervisor.
GrEnFIn Master: from an EU Project to an educational International Dimension

• GrEnFIn Consortium came up with the idea of the International Master as a result of a joint work of academies/enterprises: international network
• Double/Multiple Degree: LMU and other forcoming agreements to make the enrich the of abroad experiences
• Thesis abroad and Overseas opportunities are offered thanks to GrEnFIn connections
• Industrial research in international scenarios
ADMINISTRATIVE INFORMATION
**ADMISSION PROCESS - GrEnFiN**

You will find all information about the admission here:

https://corsi.unibo.it/2cycle/GreeningEnergyMarketFinance/how-to-enrol

There will be a **compulsory assessment test online**

Deadlines and dates for the a.y. 2024/2025 have not been published yet, but they will be similar to the a.y. 2023/2024

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<th>APPLICATIONS PROCEDURE CLOSED</th>
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<td>Intake 1</td>
<td>March 8th 2023</td>
<td>April 4th 2023 h 11:00 a.m. CET</td>
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<td>Intake 2</td>
<td>April 6th 2023</td>
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<td>Intake 3</td>
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<td>June 30th 2023 h 11:00 a.m. CET</td>
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<td>July 28th 2023</td>
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Admission requirements and evaluation

Adequate knowledge of mathematics, economics and statistics tools at undergraduate level.

Admission is conditional on the assessment of the personal qualification by the Admission Board.
GrEnFln online assessment test

- A thirty-minute test of twenty multiple-choice questions for the assessing of basic knowledge of mathematics, statistics, economics and finance. It will be administered online at http://prove.unibo.it/

- It is compulsory, and only applicants who do take it will be considered eligible for the evaluation.
Assessment

- Academic merit: **max 50 points**
- Presentation letter + motivation letter: **max 10 points**
- Curriculum vitae: **max 10 points**
- GrEnFln online assessment test: **max 30 points**

For admission: **min. 60 points**
How to apply
Admission procedure

Enter Studenti Online

and select Entrance test procedure
Required documents

- ID
- Transcript
- Curriculum Vitae
- English proficiency certificate

Optional documents

- Reference letters from academics and scholars
- Motivation letter
English knowledge

The minimum level of proficiency in English to be considered for admission is B2. It can be considered fulfilled with one of the following cases:

- Certification by the Centro Linguistico di Ateneo (CLA)
- English Language certification among the following: TOEFL, ISE, IELTS, CAMBRIDGE EXAM SUITE.
- Other international recognised English Language certification that the Admission Board might deem appropriate
- B2 level English exam in their Bachelor’s study plan
• Certification of working/studying experience in English-speaking countries (internship, exchange programme, winter/summer school, etc.)

• Certification of working/studying experience in non-English speaking countries but in which English was required and used as working language (internship, exchange programme, etc.).

• OLS Test in English obtaining the B2 level

• Holding a degree completely taught in English

• English native speaker
2 Semesters, 4 Terms

1° Semester

1 Term Sept.  - Oct.
2 Term Nov.  - Dec.

2° Semester

3 Term Feb.  – March
4 Term Apr.  – June

- Laboratory (crash course) in reassessment of real analysis and advanced differential calculus
  September
Exams

- **Written** or oral test
- **ONLY three** possibilities per year

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Enrolment and deadlines (a.y. 2023/2024)

Students can enroll to GrEnFIn from approximately end of July

to the end of October (or November, under a payment of a fine for delayed payments)

Students who have not yet completed their Bachelor’s may also participate in the selection process

(Deadline to get you bachelor degree: end of December)
International perspective

Double Degree Agreements with

University of Munich
– Germany

Université Paris Dauphine
– France
Visit the degree program website: GrEnFln