

VIRTUAL FAIR 2024

MASTER'S

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GREENING ENERGY MARKET AND FINANCE

Department of Statistical Sciences

Who we are



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A new shape of Finance



GrEnFIn proposes a new role of finance as a facilitator of the transition process.

Finance is recognized to be pivotal for the sustainable transition.

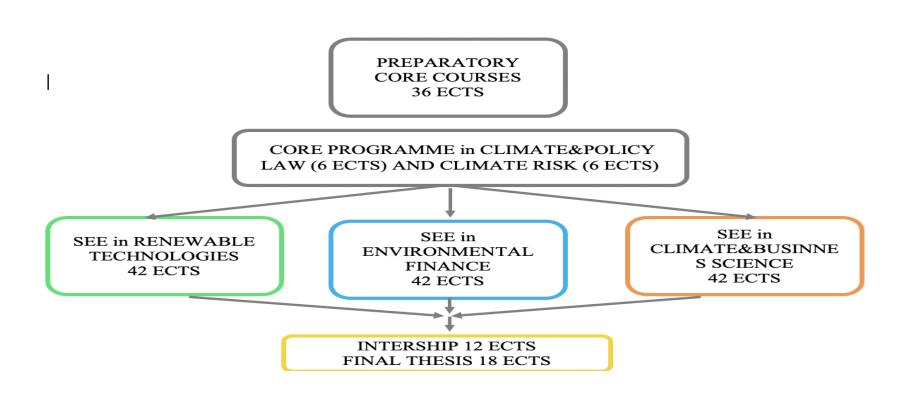
We ethically reshape its goal into a societal service for the common good.

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**: GrEnFIn 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 GrEnFIn Master Structure: an Interdisciplinary Path



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 2nd AND 3rd SEMESTER: Core courses (12 ECTS) 4th SEMESTER: Internship (12 ECTS) and Final Thesis (18 ECTS)

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

INTERNSHIP (12 ECTS)

FINAL THESIS (18 ECTS)

The Sustainable Energy Expert: Three Curricula

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&Businness 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)
- 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)

CLIMATE&BUSINNES 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
- Statistical Methods for asset management (6 ECTS)
- Statistics of financial markets (6 ECTS)
- Advanced methods for risk management (6 ECTS)

Risk modelling and probability – 12 ECTS Climate-related risk and commodity Market – 12 ECTS **ENTRY BRICK** Financial Markets & Climate change: pricing/hedging and asset management – 12 ECTS Climate System and Climate Change – 6 ECTS **BASIC TECH BRICK** Solar&Wind Energy and Storage Systems – 6 ECTS INTERMEDIATE **CLISCI BRICK** ELECTIVE FROM THE CLIMATE SCIENCE TRACK – 6 ECTS ELECTIVE FROM THE CLIMATE SCIENCE TRACK – 6 ECTS ADVANCED CLISCI ELECTIVE FROM THE CLIMATE SCIENCE TRACK – 6 ECTS INTERMEDIATE Advanced Mathematical Finance – 6 ECTS **QUANT BRICK** ELECTIVE FROM THE ENVIRONMENTAL FINANCE TRACK-6 ECTS ELECTIVE FROM THE ENVIRONMENTAL FINANCE TRACK-9 ECTS **ADVANCED QUANT BRICK** International Law and Sustainability-6 ECTS CLIPOLICYBRICK Credit and Weather Derivatives-6 ECTS

A brick composition of the educational path

The GrEnFIn 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.

GrEnFIn 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 od the educational path
- L and SMEs are partners of GrEnFIn project: relevant and innovative contribution in term 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:

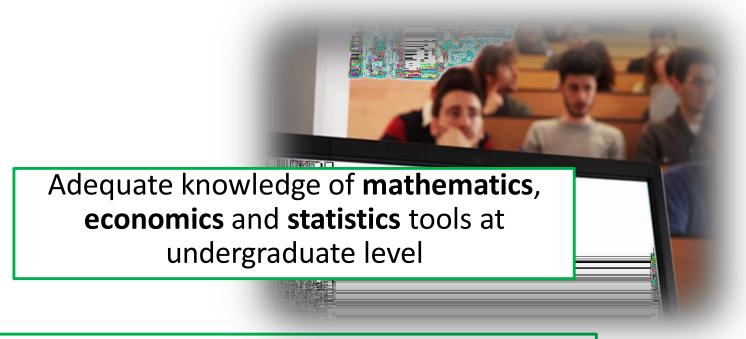
https://corsi.unibo.it/2cycle/GreeningEnergyMarketFinance/how-to-enrol

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

Deadlines and dates for the a.y. 2024/2025:

	APPLICATIONS PROCEDURE OPEN	APPLICATIONS PROCEDURE CLOSED	ONLINE ASSESSMENT TEST	RESULTS AND FEEDBACK
Intake 1 (open to all candidates)	March 8 th 2024	April 4 th 2024 h 11:00 a.m. CET	April 9 th 2024 h 11:00 a.m. CET	May 6 th 2024
Intake 2 (open to all candidates)	April 5 th 2024	May 3 rd 2024 h 11:00 a.m. CET	May 9 th 2024 h 11:00 a.m. CET	May 31 st 2024
Intake 3 (open to EU and EU- assimilated candidates)	June 3 rd 2024	July 1 st 2024 h 11:00 a.m. CET	July 8 th 2023 h 11:00 a.m. CET	July 29 th 2024

Admission requirements and evaluation



Admission is conditional on the assessment of the personal qualification by the **Admission Board**

GrEnFIn 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 evalution

Assessment



Academic merit: max 50	points

- Presentation letter +
 motivation letter: max 10
 points
- Curriculum vitae: max 10 points
- GrEnFIn online
 assessment test: max 30

points

For admission: min. 60 points

How to apply

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Graduating students

Towards and beyond the degree: all the information you need to know on final examination, continuation of study and world of work.

Short description of the programme

If you wish to enrol in QF, find out about the available opportunities for you!

QF Video presentation

Watch the video about the International programs of the School of Economics, Management and Statistics!

Play and share the double interview of our students!

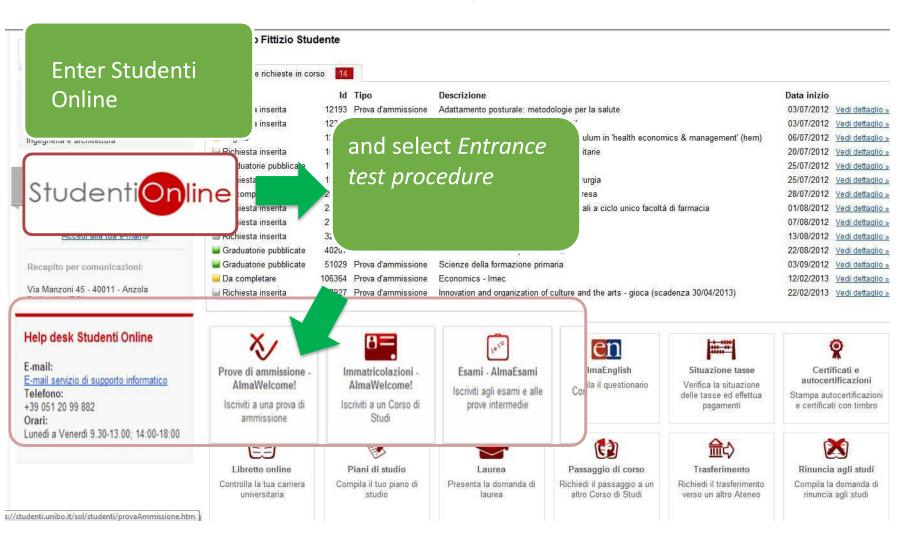
Listen to what students think about us

QF Alumni

We are on Facebook!

Like us and know all about the International Programmes at the School of Economics, Management and Statitstics of Bologna

Admission procedure



Required documents

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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 consider 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

Classes

2 Semesters, 4 Terms

1° Semester

- 1 Term Sept. Oct.
- 2 Term Nov. Dec.
- Laboratory (crash course)
 in reassessment of real
 analysis and advanced
 differential calculus
 September

2° Semester

- **3 Term** Feb. March
- **4 Term** Apr. June

Exams

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



Sep	Oct	E	Nov	Dec	Ε	Feb	March	Ε	April	May	Е
TERM 1		X	TERN	<i>1</i> 2	X	TERM 3		х	TERM 4		x
		а			а			а			а
		m			m			m			m
		S			S			S			S

Enrolment and deadlines

Students can enroll to GrEnFIn

From 25 July 2024

to 29 October 2024 (or 21 November 2024, 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: **30 December 2024**



International perspective

Double Degree Agreements with



University of Munich

Germany

Université Paris Dauphine

- France



Visit the degree program website: GrEnFIn

