



GREENING ENERGY MARKET AND FINANCE

OPEN DAY

November, 28 2023 Department of Statistical Sciences

Who we are



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A new shape of Finance



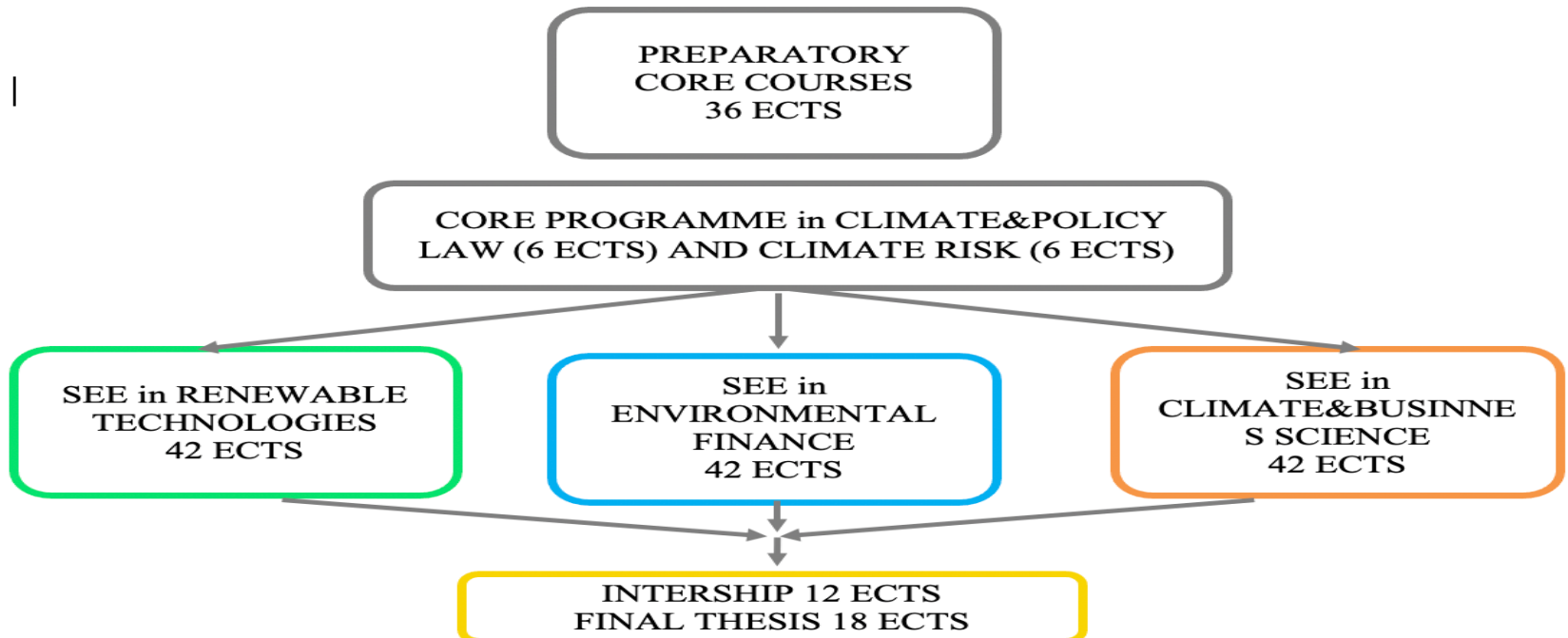
*GrEnFin proposes a new role of finance as a facilitator of the transition process.
Finance is recognized to be pivotal for the sustainable transition.
We ethically reshape its goal into a societal service for the common good.*

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

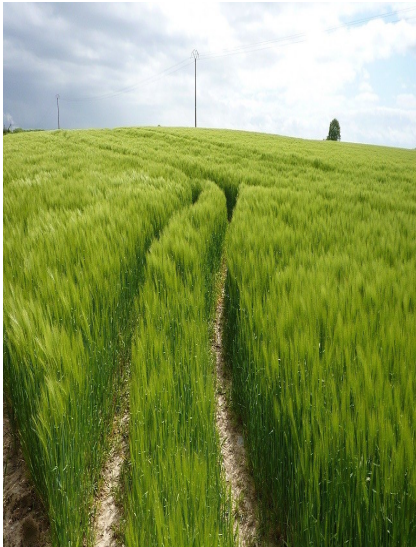
Students will increase their knowledge in **risk and financial management associate to climate**. The competences in **financial engineering** allow to design contingent claims ad hoc able to provide useful hedging strategies.

SEE in Climate&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 specialization

S



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 asset management (6 ECTS)
- Statistics of financial markets (6 ECTS)
- Advanced methods for risk management (6 ECTS)

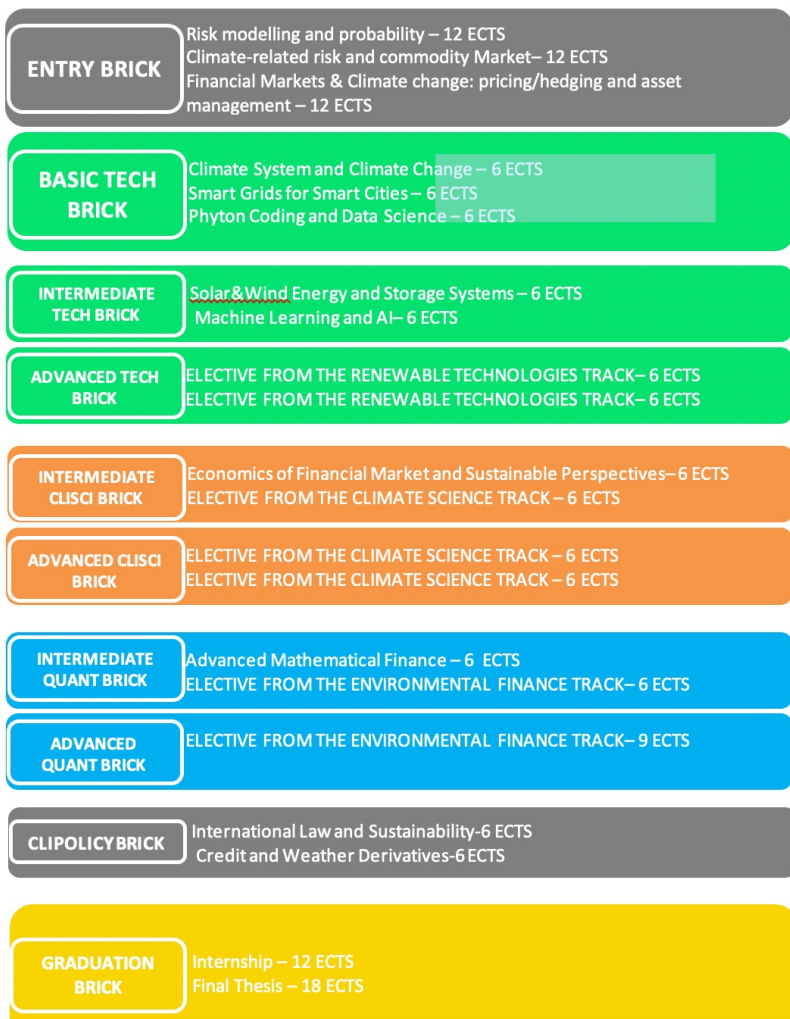
A brick composition of the educational path

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

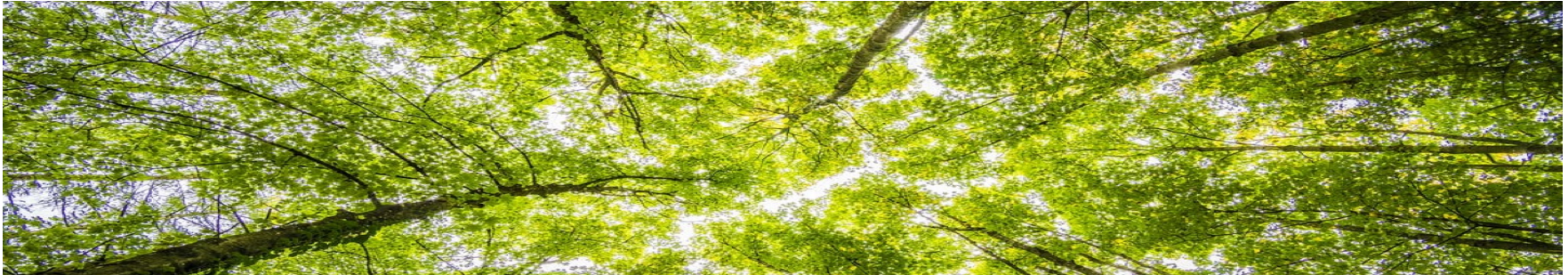
- ENTRY BRICK
- BASIC TECH BRICK
- INTERMEDIATE/ADVANCED BRICKS (CURRICULA)
- CLIPOLICY BRICK
- GRADUATION BRICK

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 GrEnFln master is our answer to the stakeholders needs: from the GrEnFln 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 GrEnFln 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



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA



ADMINISTRATIVE INFORMATION

ADMISSION PROCESS - GrEnFIn

You will find all information about the admission here:

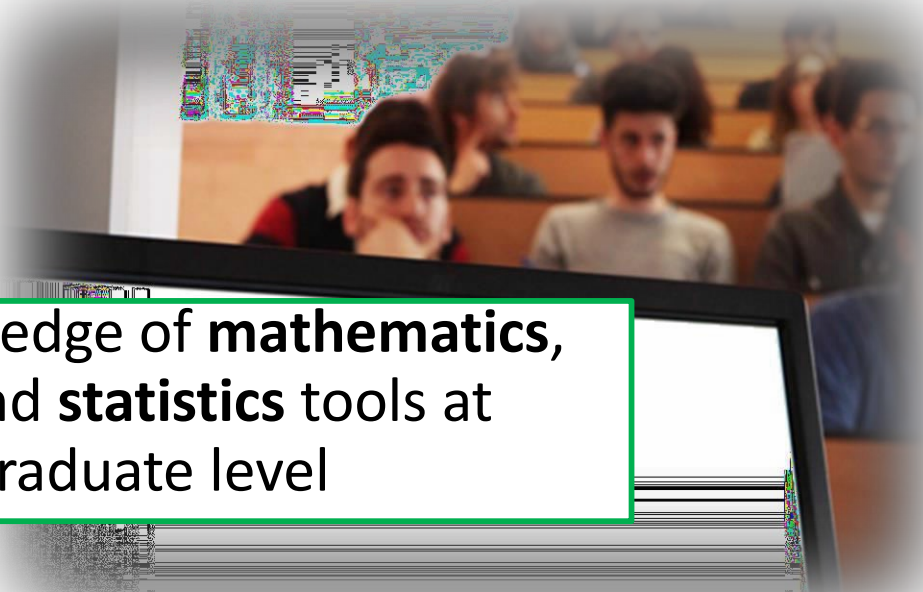
<https://corsi.unibo.it/2cycle/GreeningEnergyMarketFinance/how-to-enrol>

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

	APPLICATIONS PROCEDURE OPEN	APPLICATIONS PROCEDURE CLOSED	ONLINE ASSESSMENT TEST	RESULTS AND FEEDBACK
Intake 1	March 8 th 2023	April 4 th 2023 h 11:00 a.m. CET	April 11 th 2023 h 11:00 a.m. CET	May 5 th 2023
Intake 2	April 6 th 2023	4 May 4 th 2023 h 11:00 a.m. CET	May 10 th 2023 h 11:00 a.m. CET	May 31 st 2023
Intake 3	June 1 st 2023	June 30 th 2023 h 11:00 a.m. CET	July 7 th 2023 h 11:00 a.m. CET	July 28 th 2023

Admission requirements and evaluation



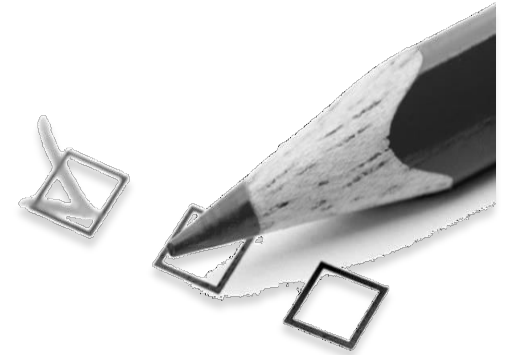
Adequate knowledge of **mathematics**,
economics and **statistics** tools at
undergraduate level

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

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 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

The screenshot shows the website interface for the School of Economics, Management and Statistics at the University of Bologna. A dark grey navigation menu is overlaid on the page, listing various services for students and staff. Two red arrows point to the 'Students' and 'Staff' sections of the menu. The background page includes a search bar, user information (margherita.derogati2@unibo.it), and sections for News, Events, and a Facebook link.

Navigation Menu:

- Students
 - AlmaEnglish
 - AlmaEsami
 - AlmaRM
 - Certificates
 - Document and library services
 - Internships
 - Merchandising (unibostore)
 - Studenti Online
 - Study plans
 - Teaching materials
 - Teaching Staff-Student Distribution lists
 - Tesi Online
- Staff
 - AlmaEsami
 - AlmaRegistri
 - AlmaRM
 - Cedolini web
 - Document and library services
 - Incarichi extraisituzionali
 - Internships
 - IRIS - Institutional research archive
 - NormAteneo
 - OrganiWeb
 - Personal Website
 - Platform for printed materials
 - Presenze web
 - Teaching materials
 - Teaching Staff-Student Distribution lists
 - Tesi Online
 - Titulus
 - Unibolmagine
 - Web U-Gov – Projects Accounting Reporting

Page Content:

- Version: Published (152.0) Status: Published
- Edit Page
- Home | Presentation | Learning activities
- Prospective students: Knowing the degree programme: characteristics, requirements and information on enrolment.
- Current students: Basic information to study and to face each step University career.
- 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
- Find here the call
- Financial aid and accommodation: 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

News:

- Intensive Programme: Finance and Energy Market (Published on 27 February 2018)
- 2018 Society of Actuaries Student Research Case Study Challenge (Published on 19 February 2018)
- Unibo Actions 1&2: study grants and tuition fee waivers for international students (Published on 25 January 2018)

Events:

- from 15 January to 1 March 2018: QF Open day 2018
- from 16 November 2017 to 1 June 2018: JOBS: seminars

Facebook: We are on Facebook! Like us and know all about the International Programmes at the School of Economics, Management and Statistics of Bologna University.



Admission procedure

Enter Studenti Online

StudentiOnline


and select *Entrance test procedure*


Help desk Studenti Online

E-mail:
[E-mail servizio di supporto informatico](mailto:mailto:servizio di supporto informatico)
Telefono:
+39 051 20 99 882
Orari:
Lunedì a Venerdì 9.30-13.00; 14.00-18.00



Prove di ammissione - AlmaWelcome!
Iscriviti a una prova di ammissione



Immatricolazioni - AlmaWelcome!
Iscriviti a un Corso di Studi



Esami - AlmaEsami
Iscriviti agli esami e alle prove intermedie



Libretto online
Controlla la tua carriera universitaria


Piani di studio
Compila il tuo piano di studio


Laurea
Presenta la domanda di laurea


Passaggio di corso
Richiedi il passaggio a un altro Corso di Studi


Trasferimento
Richiedi il trasferimento verso un altro Ateneo


Rinuncia agli studi
Compila la domanda di rinuncia agli studi

Fittizio Studente

14

Id	Tipo	Descrizione	Data inizio
12193	Prova d'ammissione	Adattamento posturale: metodologie per la salute	03/07/2012 Vedi dettaglio »
127	Prova d'ammissione	Adattamento posturale: metodologie per la salute	03/07/2012 Vedi dettaglio »
1	Prova d'ammissione	Adattamento posturale: metodologie per la salute	06/07/2012 Vedi dettaglio »
1	Prova d'ammissione	Adattamento posturale: metodologie per la salute	20/07/2012 Vedi dettaglio »
1	Prova d'ammissione	Adattamento posturale: metodologie per la salute	25/07/2012 Vedi dettaglio »
1	Prova d'ammissione	Adattamento posturale: metodologie per la salute	25/07/2012 Vedi dettaglio »
2	Prova d'ammissione	Adattamento posturale: metodologie per la salute	28/07/2012 Vedi dettaglio »
2	Prova d'ammissione	Adattamento posturale: metodologie per la salute	01/08/2012 Vedi dettaglio »
2	Prova d'ammissione	Adattamento posturale: metodologie per la salute	07/08/2012 Vedi dettaglio »
3	Prova d'ammissione	Adattamento posturale: metodologie per la salute	13/08/2012 Vedi dettaglio »
4020	Graduatorie pubblicate	Adattamento posturale: metodologie per la salute	22/08/2012 Vedi dettaglio »
51029	Prova d'ammissione	Scienze della formazione primaria	03/09/2012 Vedi dettaglio »
106364	Prova d'ammissione	Economics - Imec	12/02/2013 Vedi dettaglio »
10927	Prova d'ammissione	Innovation and organization of culture and the arts - gioca (scadenza 30/04/2013)	22/02/2013 Vedi dettaglio »

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 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.

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



Sep	Oct	E	Nov	Dec	E	Feb	March	E	April	May	E
TERM 1		x	TERM 2		x	TERM 3		x	TERM 4		x
		a			a			a			a
		m			m			m			m
		s			s			s			s

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](#)

