

MASTER IN FINANCIAL ENGINEERING

Dare to Grow in Fast-Changing Financial Environments

Full Time Program

WHO WE ARE

About Africa Business School

Africa Business School (ABS) positions itself at the intersection of business, science, and technology, promoting innovative and sustainable solutions for Africa and the world.

Founded in 2016, ABS is recognized as a center of excellence in management and innovation at Mohammed VI Polytechnic University (UM6P) and aims to become a benchmark institution in Africa in the fields of research, education, and consulting.

Drawing on more than 100 academic and executive programs, ABS meets the needs of businesses by focusing on value creation, digital innovation, and commitment to Sustainability.

Located on a next-generation campus, ABS acts as a catalyst for far-reaching transformations, integrating knowledge and skills to support organizations in a constantly evolving world.



About University Mohammed VI Polytechnic

University Mohammed VI Polytechnic is a leading institution oriented towards applied research and innovation, with a focus on Africa. The University is engaged in economic and human development and puts research and innovation at the forefront of African development.

More than just a traditional academic institution, University Mohammed VI Polytechnic (UM6P) is a platform for experimentation, a fertile ground for opportunities, which students refer to as a «School of Life».

Our university is committed to an innovative pedagogical approach which places learning by experimentation and practice at the heart of training and research.

Our pedagogy is at the service of curiosity and creativity of students, professors and partners.

REASONS TO CHOOSE ABS

KEY FIGURES

UM6P ranked among the Top 4 Universities in Africa

Over 36% international students

Pan-African at heart +8 nationalities represented

4 Full-Time MSc programs

90% Employment Rate Class of 2024 (within 6 months after graduation)



STUDENT AT THE CENTER

Student-centered journey

Take ownership of your learning journey from day one. Challenge yourself, explore your strengths, and actively shape your academic and personal development.

CAMPUS LIFE & ENGAGEMENT

Life beyond the classroom

Projects, student initiatives, clubs, and events are an integral part of everyday life, fostering autonomy, responsibility, and strong peer connections.

SKILLS THAT MATTER

Skills for real-world impact

Develop critical thinking, communication, teamwork, and adaptability to navigate uncertainty and manage complexity with confidence.

COMMUNITY & MINDSET

A community that shapes you

Grow in a close-knit and dynamic environment where ambition, collaboration, and openness prepare you for meaningful and impactful careers.



PROGRAM OVERVIEW

The main objective of the Master in Financial Engineering is to train students with expertise in financial modeling, designing, analyzing, and developing complex financial products. The program has been modernized to include emerging topics such as sustainable finance, data science, asset management, banking regulation, and asset-liability management (ALM).

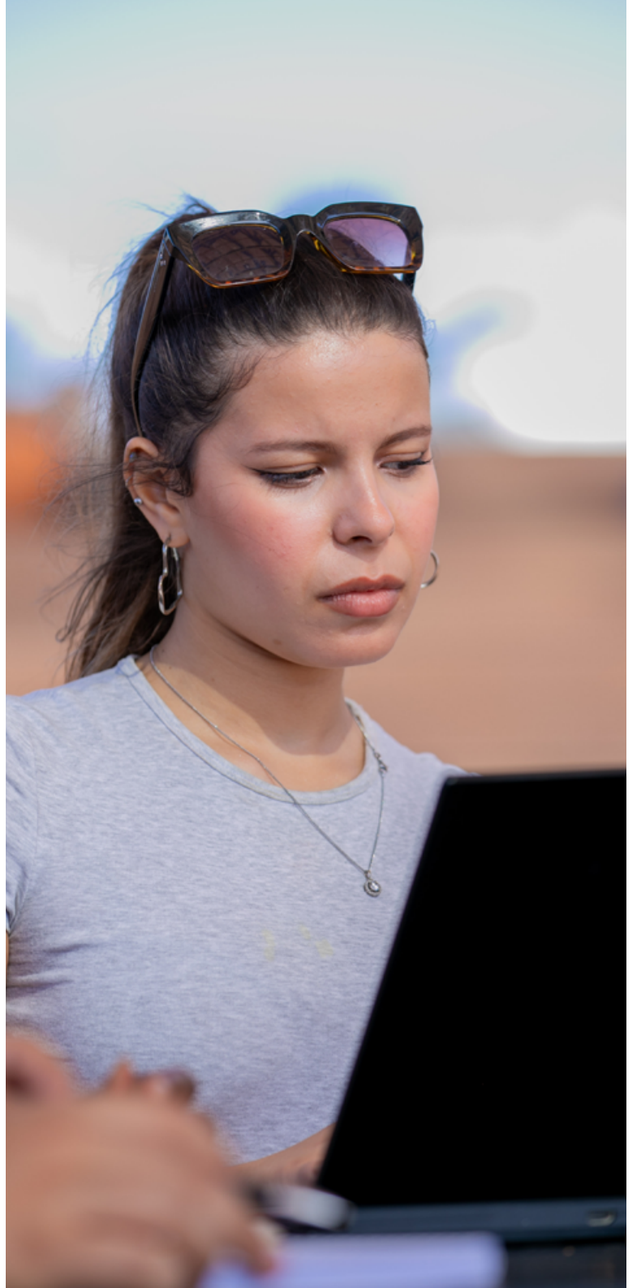
It stands out for its focus on African financial markets and the banking industry, aligning with Morocco's strategic role as a major financial hub on the continent. Additionally, the program emphasizes essential soft skills, academic development, and employability, ensuring graduates are fully equipped to navigate the complexities of modern finance.

Africa Business School, UM6P Rabat

English

2 Years (18 months of study and a 6 month internship)

Master in Financial Engineering



PROGRAM HIGHLIGHTS

A FOCUS ON AFRICA AND BEYOND

The MFE leverages the rise of Morocco and Africa as key players in the financial sector. Beyond equipping you with cutting-edge financial engineering skills, this program prepares you to play a strategic role in the development of African markets and beyond, addressing the needs of a diverse range of institutions including banks, insurance companies, pension funds, central banks, and consulting firms.

A PROGRAM ALIGNED WITH INDUSTRY NEEDS

Our curriculum is continuously updated to reflect the evolving demands of the financial industry. With specialized modules in sustainable finance, data science, banking and insurance regulation, asset-liability management (ALM), and risk management, the program ensures our graduates are ready to tackle the complex challenges faced by modern financial institutions, whether in investment funds, central banking, or corporate finance.

A NETWORK OF RENOWNED EXPERTS AND PRACTITIONERS

Courses are delivered by internationally recognized professors and industry professionals from prestigious institutions such as Natixis Bank, global audit firms, and leading universities like Université Pierre et Marie Curie, Université Paris Dauphine, New York University, and McMaster University. Students also benefit from collaborations with UM6P's Centers of Excellence, gaining exposure to real-world financial strategies and innovations.

STRATEGIC PARTNERSHIPS AND ACCREDITATIONS

Our program offers an exceptional opportunity with the upcoming accreditation from the Society of Actuaries (SOA). This recognition will enhance the quality of our program and allow our students to prepare for SOA exams through various pathways. This international accreditation opens doors to prestigious international careers in the actuarial field.

McMaster University, our globally recognized partner in actuarial science and finance, provides our students with privileged access to top academic resources and international opportunities, thereby enhancing their academic and professional outlook.

We also work closely with key Moroccan regulators to align our program with the requirements of actuarial certifications, strengthening our students' preparation for essential qualifications. This strategic collaboration adds real value to our training and boosts the professional recognition of our graduates.

CAREER OPPORTUNITIES

The Financial Engineering program opens a wide range of professional opportunities in the following fields:

- **Quantitative Analyst**
- **Financial Engineer**
- **Trading and Structuring**
- **Actuarial Science**
- **Risk Management**
- **Asset Management**
- **Asset-Liability Management (ALM)**

These career paths enable our graduates to contribute to strategic roles in financial institutions, insurance companies, investment funds, and consulting firms.

LEARNING OUTCOMES

- Graduates of the Master in Financial Engineering will achieve:
- Mastery of key financial concepts like derivatives pricing, asset management, actuarial science, and banking regulation.
- Specialization in emerging areas such as sustainable finance, data science, and asset-liability management.
- Proficiency in Python programming to apply computational methods in finance.
- Adaptation to modern finance with advanced quantitative risk management skills.
- Development of soft skills, including communication and leadership, alongside bilingual academic training.
- Practical experience through internships and projects, applying theory to real-world challenges.
- Comprehensive employability skills, including cultural awareness, to succeed in the global market.

PROGRAM STRUCTURE

SEMESTER 1

- Probability Primer
- Statistical Methods for Data Science
- Sustainable Finance
- Foundations of Finance and Financial Markets
- Python Programming for Financial Engineering
- Foreign Languages (French & English)
- Academic Skills Development

SEMESTER 2

- Processes and Stochastic Calculus
- Derivatives Pricing and Hedging
- Accounting and Corporate Finance
- Optimization and Computational Methods in Finance
- Actuarial Science
- Foreign Languages (French & English)
- Digital Skills Enhancement in Moderne Finance»

SEMESTER 3

- Portfolio Management
- Financial Econometrics
- Asset Liability Management
- Interest rates and cross-currency derivatives
- Quantitative Risk Management and Regulation
- Foreign languages (French & English)
- Cultural and Artistic Skills Development

SEMESTER 4

- Power Skill for Employment
- Internship /End of Study Project

SELECTED FACULTY

The faculty is made up of high-level finance research professors and senior executives experienced in financing techniques.



Nicole EL KAROUI

Interest Rates and Cross-currency derivatives



Youssef OUKNINE

Probability and Stochastic Calculation



Noureddine LEHDILI

Derivatives Pricing and Hedging



Nizar TOUZI

Computational methods in Finance

PROGRAM STRUCTURE

SELECTION PROCESS

- Application Review
- Written Exam
- English Test
- Oral Interview

SCHOLARSHIP

In line with its civic commitment, UM6P, a meritocratic university, supports the brightest students through an appealing system of academic scholarships and financial aid grants.

KEY DATES

- Applications Open: January 2026
- Deadline: April 2026
- Program Start: September 2026

ELIGIBILITY

Candidates must hold a Bachelor's degree (BA) or equivalent (Bac+3) in applied mathematics, statistics, computer science, economics and/or finance. Given the nature of our Master's degree, basic knowledge of mathematics, probability, statistics, computer science (algorithms, programming) and databases is recommended. Candidates will be evaluated on the basis of their skills and motivation.

TUITION FEES

- Annual Tuition: 78,750 MAD
- Scholarships: Merit-based scholarships and financial aid available for outstanding candidates

DESIGNED ADMISSION PROCESS

Step 1	Step 2	Step 3	Step 4	Step 5
Completed application via UM6P portal	Preselection of shortlisted candidates	Entry Test + Engish Test	Oral Interviews with ABS Faculty	Notification of admission



UM6P | Africa Business School

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Explore our world at
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