

# MASTER IN QUANTITATIVE ECONOMICS



## MASTER'S KEY STRENGTHS

Acquire an advanced academic training geared towards research in economics and learn about public and private economic stakeholders' decision making.

Benefit from a diversified curriculum with a strong content in advanced quantitative methods during a two-year programme taught in English.

Learn innovative techniques in large datasets processing and complex economic problems programming.

**DEGREE LEVEL :** BAC + 5

**DAUPHINE MASTER'S :**  
Grand Établissement Master's degree

**DURATION :**  
4 semesters / 120 crédits ECTS

**ORGANIZATION :**  
Initial training & Executive Education

**HEAD OF PROGRAM :**

Lise PATUREAU  
University Professor



## THE PROFESSIONAL INTEGRATION OF YOUNG GRADUATES

**1<sup>er</sup>**  
JOB  
got on average  
1 month after graduation

**€ 47,455**  
average annual salary

**80%**  
of Dauphine's students are  
in employment

Source: Survey in collaboration with the  
Conférence des Grandes Écoles, carried  
out from January to April 2023 among  
all Dauphinois graduates of the 2022  
class.



## DYNAMISM AND INTERNATIONAL OPENNESS

- A strong content in quantitative methods that includes massive data processing.
- A high-quality program in economic research within PSL Graduate Program in Economics.
- Taught entirely in English and aligned to the best international standards.
- Exchange and internship opportunities worldwide thanks to QTEM's network of universities and companies.

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## MAIN OPPORTUNITIES

- PhD in Economics, Research economist in academic institutions
- Data analyst
- Consulting in public and private companies
- Professional economist in ministries, central banks, international institutions (IMF, OECD, ...), financial institutions (banking, insurance) and large private sector companies

# OVERVIEW OF THE PROGRAM

L3 or equivalent  
of other institutions



## FIRST YEAR OF THE MASTER IN QUANTITATIVE ECONOMICS

### General training in Economics:

Macroeconomics, Microeconomics, Econometrics, Game Theory

INITIAL TRAINING  
EXECUTIVE EDUCATION



CHOICE

## SECOND YEAR OF THE MASTER IN QUANTITATIVE ECONOMICS

### “Quantitative Economic Analysis” track:

choose among 3 specialization fields

Economic Theory, Social & Public policies, Macroeconomics, Finance and Trade

### “Digital Economics” track:

Up-to-date methods for analyzing economic data  
in the various fields of Finance, Network economics, Marketing,...

Quantitative  
Economic Analysis

INITIAL TRAINING  
EXECUTIVE EDUCATION

Digital Economics

INITIAL TRAINING  
EXECUTIVE EDUCATION



## PSL GRADUATE PROGRAM & AQME CERTIFICATE

- The Master in Quantitative Economics allows interested students to acquire the Certificate in Advanced Quantitative Methods in Economics (AQME) of the PSL Graduate Program in Economics.
- The AQME certificate is based on a 2-year training (M1 Quantitative Economics - M2 Quantitative Economic Analysis) for students who plan to pursue their PhD. The theoretical part consists on validating courses and applications focused on advanced quantitative methods in economics. All certificate courses are included in the Master in Quantitative Economics. Obtaining the AQME certificate also asks for a research internship in a research center attached to a university, an international organization, or an administration in M1 or M2. The objective is to allow interested students to have a first experience in a research environment as early as the Master's degree.

## AN OPEN DOOR TO RESEARCH AND INTERNATIONAL CAREERS

This programme strives to train top-level economists, open-minded and responsive to challenges to contemporary economy. Geared towards excellence, this cursus enables students to either pursue PhD programmes worldwide or apply to economist careers within private and public sectors, Ministries, and international institutions.

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## INVOLVED PARTNERS

Worldwide exchange program within QTEM's international network of universities and companies (Quantitative Techniques for Economics and Management).

Interactions with Paris Dauphine - PSL University's research centres: LEDa (Economics), DRM (Management and Finance), LAMSADE (Computer Sciences), CEREMADE (applied mathematics) and Mines Paristech (Economics).

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## APPLY

### WHO CAN APPLY ?

- Students from France and abroad who hold a bachelor's degree or equivalent diploma within a relevant field of study (such as economics, mathematics applied to social sciences, IT applied to economics)
- For students from EU-universities: Fluency in English attested by either TOEFL-iBT results (min 90), IELTS (min score 6.5), GMAT or GRE results (min 650 in GMAT equivalent)
- For students from non-EU universities: GMAT or GRE results (min 650 in GMAT equivalent)

### HOW TO APPLY ?

- Application should be made on: [candidatures.dauphine.fr](https://candidatures.dauphine.fr)
- All information is available online

## MASTER IN QUANTITATIVE ECONOMICS



**Contact**  
contact.master-quantitative-  
economics@dauphine.psl.eu

[dauphine.psl.eu](https://dauphine.psl.eu)

**Career center**  
information.orientation@dauphine.psl.eu





# MASTER QUANTITATIVE ECONOMICS

TRACK 297

## DIGITAL ECONOMICS

### Training INITIAL

This cursus provides expert training in digital economics and methods for analyzing massive data. Taught in English, the program aims to train quantitative economists in processing and modeling large, complex datasets to shed light on the decisions of businesses and institutional stakeholders.



### OVERVIEW

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#### **300 hours**

Courses from September to April

#### **Mandatory internship**

4 months at least

#### **30 students**

### CURRICULUM

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#### **Joint mandatory courses:**

- Machine Learning
- Ethics, algorithm and data
- Digital currencies & Blockchain

**A pedagogical team** made of academics and practitioners, from start-up firms to multinational companies

### OUR STRENGTHS

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- Implement statistical and econometrical tools to obtain solid and reliable answers, allowing the enlightenment of companies and institutions' decisions
- Learn about quantitative methods for processing massive data
- Interpret and report on the results of economic, statistical and/or econometric results to different audiences, orally and in writing

### TARGETED COMPETENCIES

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- Expertise in digital economics
- Knowledge of data access' legal and ethical frameworks
- Expertise in massive datasets analysing and processing methods

## CAREERS

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### 2 MONTH

job hunting's average duration

### 100%

match between job and qualification level of graduates

€ 54,600

median initial salary

## ⊕ LEARN MORE

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Training coordination

Madalina OLTEANU & René AïD

Contact: [contact.m2-digital-economics@dauphine.psl.eu](mailto:contact.m2-digital-economics@dauphine.psl.eu)

Career center of Paris Dauphine-PSL University

[information.orientation@dauphine.psl.eu](mailto:information.orientation@dauphine.psl.eu)

## GRADUATE PLACEMENT

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Data analyst

Data scientist

Consultant in private and public companies



## APPLY

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### PREREQUISITES

— Students who hold a master's degree equalling to 60 ECTS at least in a relevant field of study (such as economics, mathematics, mathematics applied to social sciences)

— B2 level in English, validated by TOEFL-iBT (90 at least) or IELTS (6.5 at least)

— Applicants should have a solid academic background in the following fields: Economics, mathematics applied to economics, computer science applied to economics, or any other educational program with a quantitative component

### ADMISSION PROCEDURE

— Apply online on the MyCandidature application: [candidatures.dauphine.fr](https://candidatures.dauphine.fr)

## OTHER SPECIALIZATIONS OF THE 2<sup>ND</sup> YEAR OF MASTER



— Quantitative Economic Analysis





# MASTER IN QUANTITATIVE ECONOMICS

TRACK

## QUANTITATIVE ECONOMIC ANALYSIS

### Training INITIAL/EXECUTIVE EDUCATION

This programme delivers high-quality academic training for economic research, allowing an in-depth analysis of a broad spectrum of contemporary economic problems. Taught in English, the cursus provides a strong content in advanced quantitative methods, including innovative methods in massive data processing.

It allows students to pursue either PhD programmes or professional economist careers in the private and public sectors.



### OVERVIEW

#### 210 hours

Two semesters,  
Courses from September to March

#### 3 specialisation fields

Economic Theory,  
Social & Public policies,  
Macroeconomics, Finance &  
Trade

Master thesis during the 2d  
semester

#### 30 students

### TARGET COMPETENCIES

- In-depth knowledge of contemporary research problematics in your chosen specialisation track, in addition to a command of fundamental economic concepts
- Excellent aptitude to master advanced quantitative tools for processing and analysing datasets, including massive datasets

### CURRICULUM

#### Joint mandatory courses:

- Machine Learning
- Python for data science
- Advanced econometrics

#### Specialized courses' themes:

- Public policies in Health, Labor, Development economics
- Individual and collection decisions in strategic environment
- Business cycles, financial frictions and globalization

### OUR STRENGTHS

- Enroll in a high-quality cursus in economic research and acquire the certificate in Advanced Quantitative Methods in Economics of the PSL Graduate Program in Economics
- Obtain a master's degree with strong international visibility: Aligned on international standards, entirely in English, and with a strong content in advanced quantitative methods
- Address nowadays economic issues and the induced challenges for economic policy design
- Master advanced quantitative techniques, including innovative methods in large data processing

## CAREERS

### 1 MONTH

job hunting's  
average duration

### 100%

Professional integration rate

### € 47,697

median initial salary

## GRADUATE PLACEMENT

Enroll in a doctoral program, in France and abroad

Embrace a career as Professional economist in the public and parapublic sector (government, central banks) and international institutions (IMF, OECD, ...)

Get a position as quantitative economist in private businesses from various sectors: banking, insurance, consulting, health industry, energy

## PSL GRADUATE PROGRAMME & AQME CERTIFICATE

Possibility for students in Master 1 Quantitative Economics and Master 2 Quantitative Economic Analysis to acquire the Certificate in Advanced Quantitative Methods in Economics (AQME) of the PSL Graduate Program in Economics.

The AQME certificate: A 2-year training with advanced courses in economics and research internship opportunity.

## INTERNATIONAL

All classes are delivered in English



## + LEARN MORE

Training coordination  
Lise PATUREAU

Contact: [contact.m2-quantitative-economic-analysis@dauphine.psl.eu](mailto:contact.m2-quantitative-economic-analysis@dauphine.psl.eu)

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## OTHER SPECIALIZATIONS FOR MASTER 2<sup>ND</sup> YEAR



— Digital Economics

