ÉCOLE NATIONALE SUPÉRIEURE D'INFORMATIQUE POUR L'INDUSTRIE ET L'ENTREPRISE

INITIAL ENGINEER TRAINING IN COMPUTER SCIENCE

SPECIALIZATION

APPLIED MATHEMATICS

STOCHASTIC MODELS IN FINANCE
QUANTITATIVE METHODS AND STATISTICAL OPTIMISATION
DATA SCIENCE
OPERATIONS RESEARCH

CONTACT

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PARTNERS

NATIXIS
SOCIÉTÉ GÉNÉRALE
EDF
ENGIE
CRÉDIT AGRICOLE
SNCF
AIR FRANCE
AXA

ALEXANDRE DAMOUR

PROMOTION 2013

DOUBLE DEGREE ENSIIE – MASTER M2IF FINANCIAL ENGINEERING UNIVERSITY PARIS-SACLAY

CTO and co-founder of QuantCube Technology

« This specialization taught me how to use my technical skills in order to start my own company. »

MEHDI KACI

PROMOTION 2017

DOUBLE DEGREE ENSIIE – MASTER MPRO OPERATIONAL RESEARCH UNIVERSITY OF PARIS-SACLAY

Optimisation Engineer at EURODECISION

« Today, I am an Optimisation Engineer, in mission at the Operations Research department of Air France. »

JOBS OPPORTUNITIES

Data analyst
Risk manager
Operations research engineer
Quantitative analyst
Financial engineer
Statistics engineer

EXAMPLES OF INTERNSHIPS

Quantitative analyst assistant
Market risk analyst
Responsible for statistical studies - data mining
Machine learning
Structured products pricing officer

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INITIAL ENGINEER TRAINING IN COMPUTER SCIENCE

SPECIALIZATION
APPLIED MATHEMATICS

This specialization aims to form engineers with skills in three areas: computer science, probability and statistics, with their industrial and commercial applications (finance, insurance, data science, machine learning), and operations research. This two-year specialization starts from the 1st semester of the 2nd year (S3) with fundamental mathematics courses oriented towards applications. This first year is a double degree with the M1 of Applied Mathematics of Paris-Saclay University and it is a preparation for a last year of specialization, which is typically a double degree with a university M2. The lecturers come from academia as well as from companies with the aim to offer a complete professional education to the students.

S3

Computer Science Project and Agile Methods or Functional Analysis
Stochastic Processes
Regularised Regression Model
Advanced Programming and Project
Data Analysis
Operations Research

S4

Simulation Methods
Analysis of PDEs
Statistical Models
Stochastic Calculus
Introduction to Financial Markets or Operations Research
Research Project or Pattern Recognition and Biometrics

S5

Advanced Statistical Models
Stochastic control
Numerical Methods in Finance
Financial Instruments
Machine Learning
Advanced Stochastic Calculus

BI-CURSUS

Licence de Mathématiques
Université Évry Val d'Essonne

M1 **Applied Mathematics**
of Paris-Saclay University

Financial Mathematics / Finance

Master **M2QF**
Quantitative Finance

Master **GRA**
Risk and Asset Management

Data Science / IA

Master Data Sciences **FISE** et **FISA**
Health, Insurance and Finance

Master **AI** (ex-AIC)
Artificial Intelligence

Master **IMSD**
Innovations, Marché et Sciences des Données

Master **TRIED**
Traitement de l'Information et Exploitation des Données

MASTERS IN BI-CURSUS WITH OTHER UNIVERSITIES

- Master Data Sciences (MOSEF, Université Paris 1)
- Master Parisien de Recherche Opérationnelle (MPRO, Institut Polytechnique de Paris)

DOUBLE DEGREE WITH M2QF

- Master in Applied Math/Finance in Munich
- Master Finance/Econometrics /Statistics in Bologna
- Master Finance and Risk Management in Florence

DOUBLE DEGREE

- Master in Applied Math (Polytechnic of Milan)

ERASMUS AGREEMENTS

- Master Applied Math/Finance/Data Science in Florence, Verona, Turin, Milan

OTHER MASTERS

- Master in Maths and Finance Imperial College, National University of Singapore, Oxford