MSc DATA SCIENCE FOR BUSINESS
STUDY IN TWO GLOBALLY-RECOGNIZED INSTITUTIONS

École Polytechnique and HEC Paris are both world leading academic institutions, renowned for the quality of their degrees, faculty and research. Their association within this Joint Degree represents the best Business/Engineering combination available in Europe, with considerable added value for the students.
MSc DATA SCIENCE FOR BUSINESS

100% ENGLISH

≥ 120 ECTS CREDITS

2 YEAR PROGRAM

8 CERTIFICATES

2 WORLD-RENOWED INSTITUTIONS

6 MAJOR CAREER FAIRS
BUILD YOUR FUTURE WITH A PRIZED DOUBLE PROFILE

YEAR 1: CURRICULUM AT ÉCOLE POLYTECHNIQUE

The teaching will focus largely on the data produced by ‘real-life’ cases obtained in association with the program’s industrial partners. We will teach students the newest and most commonly used tools in this industry. Depending on the profile of the students, they will have access to either management foundation courses (accounting and marketing) or mathematics foundation courses (mathematics, statistics and probabilities).

CORE COURSES
- Statistics in Action
- Statistics with R
- Born to Code (Python programming)
- Advanced Programming
- Mathematical Foundations of Data Science
- The Art of Regression
- Data Structure & Data Management
- Data Base Management System
- Systems for Big Data Analytics

PROGRAM FACILITATORS
- Machine Learning
- Neural Networks and Deep Learning
- Computational Statistics
- Graphical Models for Big Data Analytics
- Big Data Mining
- Big Data Systems
- Data Camp
- Large Graphs Mining
- Text and Graph Mining.

YEAR 2: CURRICULUM AT HEC PARIS

HEC Paris offers two different options for the second year of the curriculum: Strategic Management or Digital Business. Students will join the cohort of the HEC Grande École students.

THE STRATEGIC MANAGEMENT OPTION

Core Courses
- Core Methodologies for Strategy Consulting
- Financial Dimension of Strategic Decisions
- Strategic Analysis of Negotiation Games
- Strategic Management Accounting
- Strategic Marketing
- ...

Examples of Electives Courses
- Business Analytics
- Digital Transformation, Media and Beyond
- From Digital to Big Data
- Internet-Based Business Models
- Managing Global Complexity
- Strategy for Multi-Sided Platforms

Company Project
- Study trip (London, Berlin, New York...)

THE DIGITAL BUSINESS SPECIALIZATION

Core courses
- Numerical Strategy
- Internet and Telecom Economics
- Strategic Marketing and Business Models of the Digital Age
- Digital Marketing (SEO ans SEM, CRM, Display, retargeting and other digital tools, Apps)
- Social Media Management
- Big Data/ Big Business
- E-reputation, Crisis Management and Economic Intelligence
- New Digital Economy Law

Tracks
- Digital Entrepreneurship
- Digital Transformation

Case Study: Digital strategy Challenges with Firms
- Big Data
- Connected Objects
- Digital Consumer
- E-Commerce
- Study trip (New York...)

Research Thesis

A COMPREHENSIVE SUPPORT FOR YOUR CAREER

Both HEC Paris and École Polytechnique are committed to helping you achieve your career goals. We mobilize a wide range of resources to help build your career plan and access the best possible internship and job opportunities.

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(600 companies recruit on both schools’ campuses)
INFORMATION AND APPLICATION:
www.hec.edu/Masters-programs

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HEC PARIS PROGRAM PORTFOLIO:
- Grande École Master’s Programs:
  Master in Management (MiM), Master in Management & Public Affairs (MPA),
  Master in Management & Business Law (MBL)
- One year MSc/MS programs
- MBA Program
- PhD Program
- Executive Education Programs: TRIUM Global Executive MBA, Executive MBA,
  Executive Masters Programs, Open-Enrollment Programs, Custom Programs
  and Coaching
- Summer School Programs.