



MSc **DATA SCIENCE FOR BUSINESS**

HEC PARIS

#3

BUSINESS SCHOOL
WORLDWIDE
(Times Higher Education,
Alma Mater Index 2017)

#2

MASTER IN MANAGEMENT
WORLDWIDE
(FT ranking 2016)

#1

MASTER IN STRATEGIC
MANAGEMENT
WORLDWIDE
(The Economist ranking 2017)

ÉCOLE POLYTECHNIQUE

#3

BEST SMALL UNIVERSITY
WORLDWIDE
(Times Higher Education
Ranking 2017)

#4

UNIVERSITY FOR
GLOBAL EXECUTIVES
(Times Higher Education,
Alma Mater Index 2017)

#6

MOST ATTRACTIVE
INSTITUTION IN THE
WORLD FOR EMPLOYERS
(2016 QS Graduate
Employability Ranking)

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.

2
YEAR
PROGRAM

8
CERTIFICATES

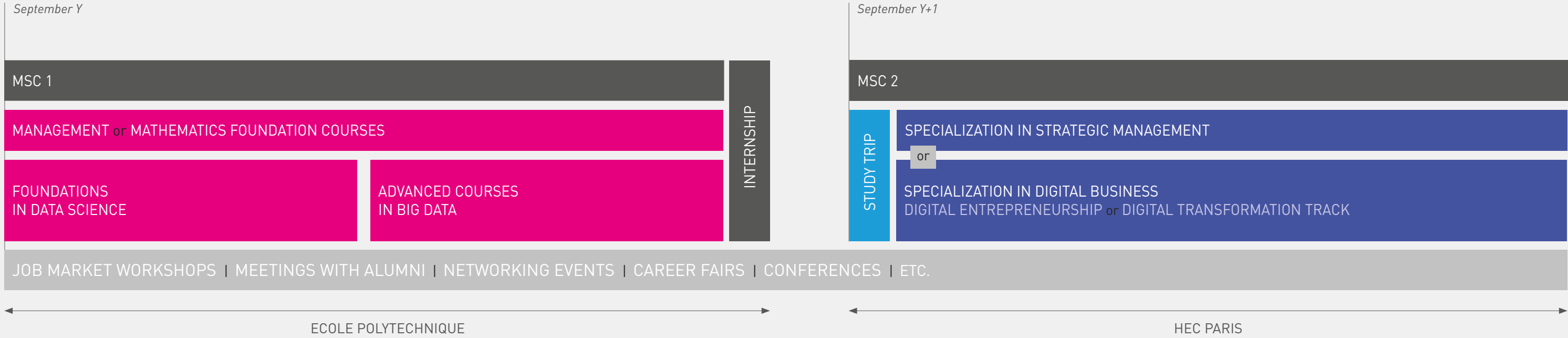
100%
ENGLISH

MSc DATA SCIENCE FOR BUSINESS

2
WORLD-RENOWNED
INSTITUTIONS

≥ 120
ECTS CREDITS

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

- 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.

PROGRAM FACILITATORS

- Applied Mathematics Centre (CMAP), Ecole Polytechnique
- Information Technology Laboratory (LIX), Ecole Polytechnique

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

Workshops with Consulting Firms

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.

CAREER COACHING

MAJOR CAREER FAIRS & COMPANY PRESENTATIONS
[600 companies recruit on both schools' campuses]

MOCK INTERVIEWS

MEETINGS WITH ALUMNI

MASTER'S THESIS

ENTREPRENEURSHIP SUPPORT

CONSULTING PROJECTS AND REAL-LIFE CASE STUDIES

NUMEROUS CHALLENGES WITH FIRMS



INFORMATION AND APPLICATION:

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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-En-
rollment Programs, Custom Programs
and Coaching
- Summer School Programs.