

MSc&T Data Science for Business

Joint Degree X-HEC
Year 2020-2021

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TWO WORLD LEADING ACADEMIC INSTITUTIONS



#4

UNIVERSITY FOR GLOBAL EXECUTIVES

(TIMES HIGHER EDUCATION ALMA MATER INDEX)

#2

WORLD'S BEST SMALL UNIVERSITY

(TIMES HIGHER EDUCATION 2018)

#1

GRADUATE EMPLOYABILITY IN FRANCE

(QS RANKING)

#3

UNIVERSITY FOR GLOBAL EXECUTIVES

(TIMES HIGHER EDUCATION ALMA MATER INDEX)

#2

MASTER IN MANAGEMENT WORLDWIDE

(FINANCIAL TIMES RANKING)

#1

MSc IN STRATEGIC MANAGEMENT WORLDWIDE

(THE ECONOMIST RANKING)

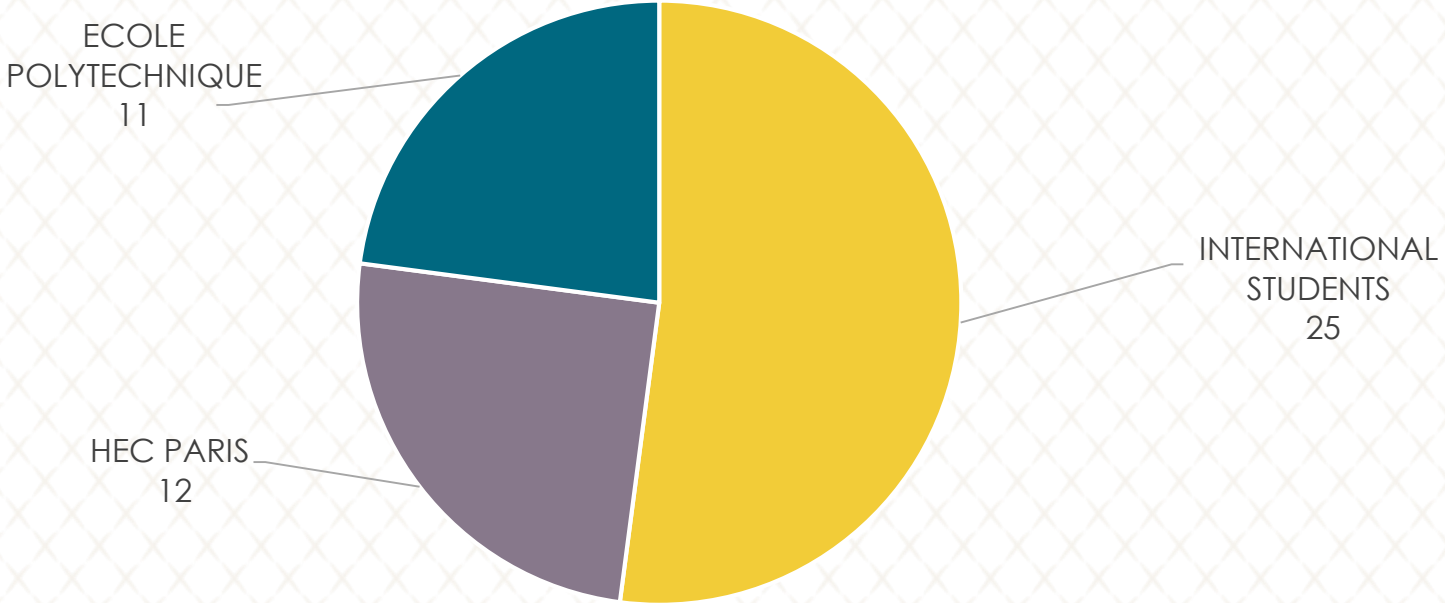
PROGRAM OBJECTIVES



TRAIN DUAL PROFILE MANAGER AND DATA SCIENTISTS TO BECOME EITHER

- THE ENTREPRENEURS WHO WILL CREATE THE FUTURE SUCCESSFUL AND IMPACTFUL STARTUPS
- THE INTRAPRENEURS WHO WILL DISRUPT BUSINESS MODELS IN EXISTING COMPANIES
- THE DATA MANAGERS WHO WILL HELP COMPANIES TO MANAGE INNOVATION
- DOUBLE SKILLS NEEDED NO MATTER THE REGION, THE SECTOR, THE COMPANY SIZE, IN OPERATION AND CONSULTING

PROGRAM'S KEY STRENGTH PROFILES DIVERSITY



TOTAL YEAR 2019-2020 DSB1 STUDENTS: 48

PROGRAM

DURATION, LOCATION & DIPLOMAS



- YEAR 1: FOCUS ON DATA SCIENCE AND INTERNSHIP AT ECOLE POLYTECHNIQUE
- YEAR 2: MAJOR DATA SCIENCE FOR BUSINESS
- MSc&T IN DATA SCIENCE FOR BUSINESS (ECOLE POLYTECHNIQUE + HEC), + DIPLÔME D'INGENIEUR (3A) + DIPLÔME DE L'ECOLE POLYTECHNIQUE (4A)

YEAR 1

AT ECOLE POLYTECHNIQUE

PERIOD 1

- MAP531** Statistics with R
- MAP534** Machine Learning 1
- MAP535** Regression
- MAP536** Python for Data Science

PERIOD 2

- MAP541** Machine Learning 2
- MAP545** Optimization / Deep Learning
- MAP540** Data Camp



PERIOD 1&2

- MAP543** Database Management
- MAP547** Data Science for Business Seminars

YEAR 1

AT ECOLE POLYTECHNIQUE

INTERNSHIPS, SOME EXAMPLES:



Facebook



Atos



Amazon



UBISOFT
Ubisoft



BNP
PARIBAS

BNP Paribas



Owkin



AIRFRANCE
Air France



Boston
Consulting
Group

EXAMPLES OF SUBJECTS:

- Ubisoft: fraud detection
- Dreem: testing new intervention (number of pink noise, when?) to improve sleep

YEAR 2 AT HEC PARIS

CORE COURSES

- Advanced Coding in Python for ML
- Reinforcement Learning
- Advanced Deep Learning
- Data Engineering
- Causal Inference
- Data Science for Management Courses: Data and Finance, Data and Strategy, Data Consulting, Data and Sustainability, Data and Legal Questions, Data and Ethics...

**DATA
BUSINESS
CHALLENGES**

**LEARNING
EXPEDITION**

**RESEARCH
PAPER**

CERTIFICATES

**DATA ENTREPRENEUR
TRACK**

OR

DATA MANAGER TRACK

OR

**DATA CONSULTANT
TRACK**

YEAR 2

AT HEC PARIS

**DATA
BUSINESS
CHALLENGES**

**LEARNING
EXPEDITION**

**RESEARCH
PAPER**

CERTIFICATES

- ▶ 3 CHALLENGES FROM 2 TO 3 WEEKS WORKING ON UP TO DATE COMPANY REAL (DATA) BUSINESS CASES IN DOMAINS SUCH AS INSURANCE, RETAIL...
- ▶ DISCOVERING DURING A FULL WEEK A DATA STARTUPS ECOSYSTEM SUCH AS PARIS AND/OR LONDON
- ▶ WORKING ON A SPECIFIC SUBJECT DURING 4 MONTHS WITH THE HELP OF A TUTOR
- ▶ POSSIBILITY TO JOIN ONE OF THE 8 HEC CERTIFICATES: LUXURY, MERGERS&ACQUISITIONS, CLIENT EXPERIENCE...

YEAR 2

AT HEC PARIS

DATA ENTREPRENEUR TRACK

- ▶ JOINING THE HEC STARTUP LAUNCHPAD, AN HEC LEADING PROGRAM FOR STARTUPS

OR

DATA MANAGER TRACK

- ▶ JOINING A DATA SCIENCE DEPARTMENT OF A BIG/MEDIUM COMPANY OR A STARTUP

OR

DATA CONSULTANT TRACK

- ▶ JOINING A CONSULTING FIRM TO HELP CLIENTS TO DEVELOP BUSINESS USING DATA

APPLICATION AND DEADLINE:



APPLICATION:

STEP 1: <https://formulaire.polytechnique.fr/candidatures/logincandidature/index.php?cursus=GD>

STEP 2: admission jury (end of May)

STEP 3: oral interview (pre-selected candidates only)

DEADLINE: May, 15, 2020

TUITION FEES: €20,500- for the 2nd year only (HEC)

ANY QUESTION



GDADMISSIONS@POLYTECHNIQUE.FR



QUESTIONS ABOUT THE PROGRAM :

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