



BACHELOR Y

Modeling & Data Science for a Changing World



There is no more important mission for universities than to expose students to the world and to its complexity
Andrew Hamilton (NYU)

This document/work received support from the French National Agency for Research under " Investments for the future " program with the reference ANR-16-IDEX-0008.

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The University Paris Seine is a consortium of 15 higher education and research institutions. With more than 22,000 students working in a large spectrum of scientific fields, Paris Seine will become a leading institution in France. Situated in Cergy, in the heart of France, 30 km from Paris, Paris Seine has a strong relationship with major economic players.

Many leading companies are established in the Cergy area which has been described by the press as the "best place to study in France".



Our philosophy: Focused on business

Moreover, the possibility to study in our overseas campus will allow them to blend into any cultural environment. Each year, students will also benefit from an enriching internship.

A changing world

Graduates will be part of the global changing world, with their brand new knowledge in exciting new fields:

- Big data, Open data, linked data
- Machine learning, Deep learning, Artificial intelligence
- Cyber security, Cryptology
- Smart systems
- Finance engineering
- Economic Analysis
- Quantum technologies

"Data Science for a changing world"

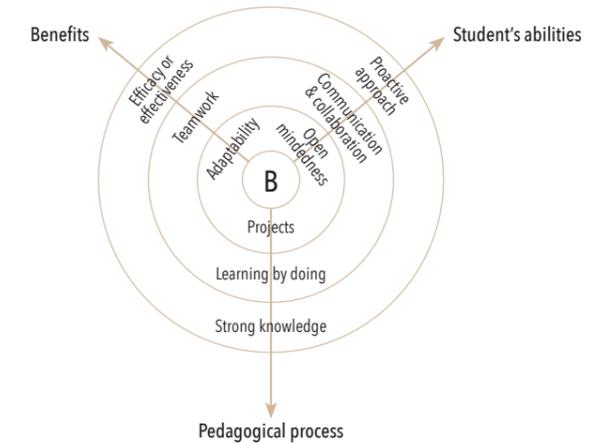
A multipurpose degree in Sciences, Engineering, and Economics

- Participants in this program will be armed for success in the professional world and will have gained essential tools such as:
- an ability to drive technical aspects associated with the project, as well as an outstanding comprehension of their objectives;
 - a solid command of the major (current and future) founding disciplines of their profession;
 - a pragmatic approach, which is both practical and logical.

To achieve these three goals, the program content and pedagogy are rooted in the following principles:

Project based learning (PtBL)

Nearly fifty percent of classroom time is dedicated to projects issued from research and companies' practices. Our project-based approach differs from traditional ones: learn and then apply. Participants will also be encouraged to "learn hands on" and "learn by doing", where necessary, in order to achieve project goals (expanding the knowledge base, planning for knowledge acquisition).

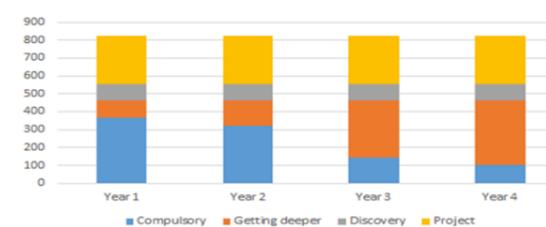


The foundation courses: made to measure

The content of the course program has been selected to provide students with solid foundations in core disciplines. Advanced elective courses structured around major areas of specialization are provided, ensuring full employability for each student in relation to their particular area of interest. Each academic year is organized around four activity periods:

- compulsory courses which will prepare knowledge foundations in the core disciplines
- deepening knowledge in order to guide students towards their specialization
- discovery modules to learn about professional perspectives
- transverse projects.

Courses made for you! Focus on year one



Overview of first year compulsory courses

Mathematics	Physics	Information Processing	Economy; management, finance
The introductory week is devoted to preparing students for the course and presenting the new pedagogical method whereby students will be actors in their own learning process: learning to do, doing to learn, and learn by doing, Our main axis: challenging students with projects, as from the beginning! The teaching staff will be available to help and support students for the duration of their projects			
Analysis Complex numbers and trigonometry Linear Algebra Probability	Electricity Special Relativity	Algorithmic Programming (Python)	Macroeconomics Microeconomics

Preparing the students for the next revolutions

Course participants will become acquainted with the latest advances in the Modeling and Data Science fields, as well as cognitive and quantum computing, with a mixture of courses and lectures available.

Encountering specific domains

Data science is nowadays useful in many domains, such as business, biology and medicine, physics, chemistry, etc. A set of courses, labeled "discovery courses", present the latest challenges in a variety of domains and introduce the major concepts, processes and techniques in these areas.

Further studies

After obtaining their Bachelor's degree, graduates can choose to enroll in a Master's degree in our university or in other partner universities. Master specializations will depend on the "diving deeper" modules chosen by the student during the curriculum. After their Master's degree, students will also have the possibility to undertake a PhD program.

Employment opportunities

Bachelor graduation allows access to the following different professional activities according to their specializations:

- Data Analyst
- Data Architect
- Data Scientist
- Security Manager, Information Security Analyst
- System Administrator
- Information Systems Security Manager
- Smart System Engineer
- Financial Engineer, Quantitative Analyst
- Economic Analyst
- Marketing Research Analyst
- Researchers and Engineers specialized in Quantum Technologies

Criteria for Admission

Background

- Proeminent academic skills in high school, especially in Mathematics and Science.
- High school leaving certificate, either internationally recognized or in the country of the candidate (French Baccalaureate, OIB, International Baccalaureate, Swiss high-school maturité certificate, European high-school certificate, etc.).

Application form

- Candidates are invited to fill in an application form to be reviewed by a jury.

Interview

- For international / overseas applicants, video interview will be available through
- Skype

Admission Fees

Tuition fees will be 5,000 euros a year.

This is an "early bird" fee for students joining the program for the 2018-2019 academic year .

Normal costs are 10,000 euros a year.



Contact

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