

BSc IN AI, DATA AND MANAGEMENT SCIENCES

BSc AIDAMS



ESSEC BUSINESS SCHOOL



Vincenzo Vinzi
Dean and President
of ESSEC Business School

CREATED IN 1907, ESSEC BUSINESS SCHOOL IS A WORLD-SCHOOL WITH FRENCH ROOTS. ITS PURPOSE IS TO INFUSE TOMORROW'S LEADERSHIP WITH MEANING.

ESSEC is a **business school** with programs ranging from Bachelor to PhD, a wide range of Masters programs including our flagship **Master in Management** and **Global MBA** programs. ESSEC also offers executive education and custom training designed and developed on-demand for our partners from the private sector. ESSEC holds the “**Triple crown**” of accreditations for global business education: **EQUIS, AACSB** and **AMBA**.

At the core of the ESSEC learning experience is a combination of **excellence and distinctiveness**. ESSEC's **unique educational model** is based on education by experiences, that foster the acquisition of **cutting-edge knowledge** with the development of **know-how** and **life skills**. At ESSEC, we aim to **empower** students and give them the keys to imagine, create, lead and have a **positive impact** in the business world of tomorrow that will be more complex and changing ever more rapidly.

ESSEC is a world-school. Our International campuses in **Asia-Pacific** and **Africa** are **dual gateways** that allow students to really immerse themselves into **different cultures** worldwide and develop **genuine expertise** about business in those regions. They allow our school to build deeper alliances with academic, private and public partners in those regions that are growing at an accelerated pace and will be leaders of economic growth in tomorrow's world. ESSEC has built a network of alliances with **academic partners worldwide** so that its students' learning journey is a true international one.

ESSEC is a school with **French Roots** that trains **responsible leaders**. Being a responsible leader means being able to see beyond *business as usual*. Responsible leaders are able to value **long-term benefits** over short-term profits; they are able to blend corporate performance with **employees' well-being**. To prepare its students for the world of tomorrow, ESSEC's pedagogy seeks to awaken and develop **creative and critical thinking**, together with **the learning-by-doing** method. Responsible leaders are those who can see the broader picture.

ESSEC is a **full ecosystem** at the crossroad of rigorous and relevant research, innovation, business and society. At ESSEC we believe in bringing research and companies into the classroom, we also believe that learning doesn't end with a degree: learning at ESSEC means becoming a **life-long learner** and joining a close-knit **community** of more than **69,000 Alumni** all across the globe. ■

Key figures

69,000
graduates worldwide

4 — +1
campuses in Cergy, Paris-La Défense, Singapore and Rabat augmented digital campus

220 partner universities in 46 countries

31 double degree programs (24 international, 7 national)

169 permanent faculty of 37 nationalities including 23 Emeriti professors

24 learning and research chairs

+ 1000 partner companies

7,407
students in full-time undergraduate and graduate programs

40.75% — +100
international students nationalities represented

86 +100
PhD students student organizations

5,000
managers in executive education

CENTRALE SUPÉLEC



Romain SOUBEYRAN
Dean of CentraleSupélec

The impact of Data and AI in industry and society requires no introduction. From addressing the tremendous challenges of climate, biodiversity, energy, information, security, and health to creating new social and economic value. When the ability to reason, interpret and model complex data dynamics meets innovative value creation and monetization methods, these challenges get closer to solutions. Solving challenges is the essence of good engineering and the essential component of CentraleSupélec's engineering curriculum, driven by the robust domains of mathematics and computer science and their associated scientific disciplines.

The Bachelor of Science in Artificial Intelligence, Data and Management Sciences integrates these interdisciplinary sciences with business on an international scale. We aim to go beyond understanding and interpretation by combining the sciences and technology with business excellence.

The CentraleSupélec – ESSEC collaboration provides this fertile ground for building these interdisciplinary foundations and raising a new generation of transformational leaders who understand, harness, and cultivate the potential of artificial intelligence, data assimilation, and science management in society through business value creation.

This objective can only be met through the highest standards of excellence in a highly interdisciplinary setting, a highly familiar setting for us in our unique, longstanding partnership and collaboration with ESSEC Business School - one of the most renowned business schools worldwide. ESSEC and CentraleSupélec have long been endowed with faculty of the most selective international standards who nurture an academic program of outstanding quality at the intersection of data sciences and business analytics.

I am sure that this program will exceed your expectations and will have an incredibly positive impact on your professional career. ■



WITH ITS INTERNATIONAL COVERAGE ACROSS 5 CAMPUSES (PARIS-SACLAY AND BEIJING), CENTRALESUPÉLEC ACCOUNTS FOR:

- 4,200 students and 370 professors and researchers interacting with its international network.
- 600 doctoral students in 16 laboratories and research teams.
- 3 schools abroad (China, India and Morocco) and 5 associated international laboratories (Brazil, Canada, United States and China).
- 180 foreign partner universities.
- 140 partner companies.

Our world today is undergoing unprecedented changes. The digital revolution, massive data and globalization are real revolutions that raise huge challenges and expectations for society.

Businesses are looking for high-level scientific professionals who are true "integrator-innovators", able to pool wide fields of expertise, generate new solutions, initiate and bring about change with a strong sense of ethics, responsibility and civic engagement, particularly in the face of social and environmental concerns.

Today, CentraleSupélec has all the assets to meet the needs of 21st century companies and businesses:

- By training multidisciplinary engineers-entrepreneurs and experts in complex systems.
- By developing innovative responses to major technological, economic, social and environmental challenges through research.
- By enabling working professionals to acquire the skills they need to adapt to change and make their companies more competitive.

It develops its academic excellence and research through robust and fruitful cooperation with major national organizations such as CNRS, CEA, INRIA, INSERM and ONERA.

RANKED AMONG THE BEST UNIVERSITIES IN THE WORLD:

6TH worldwide for employer reputation.

9TH in the world for institutions under **50** years of age.

15TH worldwide at ARWU.

1ST worldwide on Mathematics at ARWU.

CentraleSupélec has a network of **45,000** active graduates in all sectors around the world.

CentraleSupélec is a founding member of the Paris-Saclay University, the T.I.M.E. network, the Alliance 4Tech, a strategic partner of ESSEC Business School and president of the École Centrale Group.

A MAJOR INSTITUTION OF INTERNATIONAL STANDARD

Ranked among the 200 best universities in the world by QS, CentraleSupélec has a network of 176 partner universities in 45 countries, 80 double-degree agreements, 30% foreign students, 24% foreign professors, and a network of 35,000 men and women working on all continents.

Like the best higher education institutions, CentraleSupélec is continuously developing its presence in the major countries of the future: In 2005, École Centrale Paris, with the École Centrale Group over which it presides, became the first major French engineering school to export its educational model abroad with the creation of École Centrale Beijing in China. In 2015, École Centrale Casablanca was launched in Morocco. The School also implements an active policy of partnerships with academic and research institutions worldwide, with 5 associated international laboratories (China, United States, Singapore and Canada).

Thus, CentraleSupélec is building a worldwide group of interconnected schools and laboratories, which will continue to expand.

Welcome to CentraleSupélec!

EDITO

TURN YOUR DREAMS INTO REALITY

ESSEC Business School and CentraleSupélec have joined forces to create an international Bachelor program in Artificial Intelligence, Data and Management Sciences. Information technologies, and in particular massive data processing and artificial intelligence, are a source of both opportunities and challenges for organizations and societies. It is essential that the young generation understands the dynamics of the current transitions, strongly affected by the social, environmental and digital transformations of society, and be properly equipped to handle them.

The Bachelor in Artificial Intelligence, Data and Management Sciences program is hybrid and innovative. It combines the academic resources and educational expertise of two major schools, one of business, the other one of engineering, to allow students to build in-depth knowledge of models and scientific methods of data analysis, develop strong skills in mathematical modelling and computer science, and acquire a solid generalist base in the disciplines of management and administration.

At the end of the program, graduates will be able to start their own business or enter the job market in technical or managerial positions. They will also be able to deepen and specialize their knowledge by joining a prestigious Master's degree... and turn their dreams into reality!



Hugues LEVECQ
Executive Director
Bachelor of Science in
Artificial Intelligence Data
and Management Sciences

A UNIQUE PROGRAM THAT BLENDS EXCELLENCE IN SCIENCES & BUSINESS

1 DIPLOMA, 2 PRESTIGIOUS EUROPEAN SCHOOLS

ESSEC-CentraleSupélec Bachelor in Artificial Intelligence, Data and Management Sciences program combines faculty resources of two of the most prestigious Business and Engineering Schools in Europe.

The program is designed to provide an hybridisation between management courses, data analysis, and AI courses.

- Internship/professional experiences
- Hybrid and innovative program
- International academic exchange



Key facts

Focus:
Business, Data
Science & Artificial
Intelligence

Academic fields:
Business Analytics,
Computer Science,
Data Science,
Economics,
Management,
Mathematics

**International
mobility +
Internships**

Hybrid structure:
courses from both
institutions

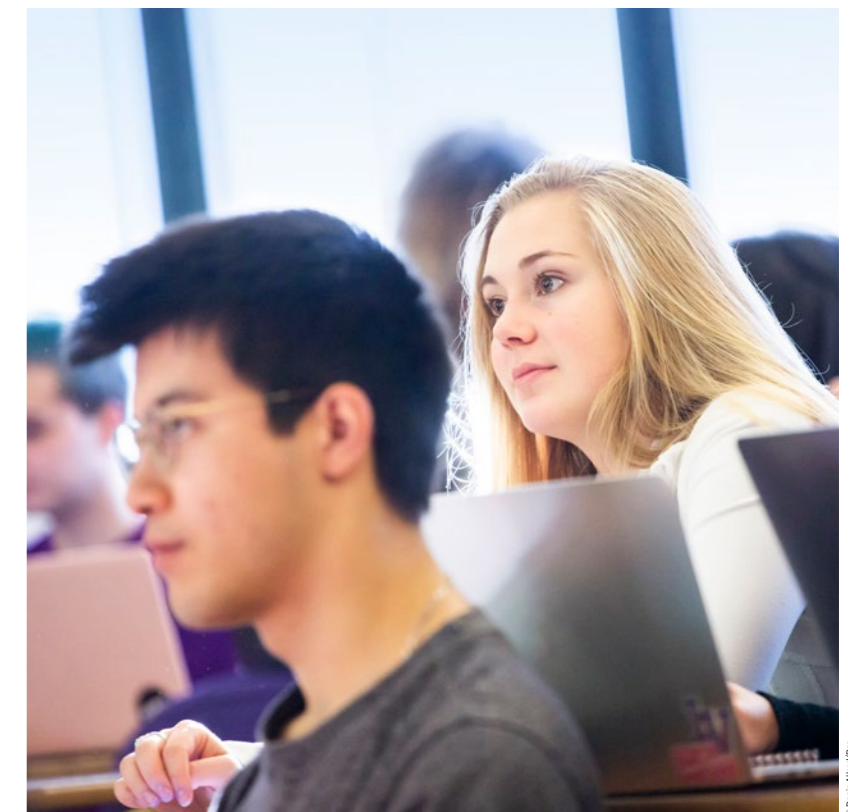
4 years,
240 ECTS

500
hours/year

**Teaching
language:
English**

Start date:
September

The Bachelor in Artificial Intelligence, Data and Management Sciences program is a four-year undergraduate degree delivering 240 ECTS - European Credits ("Master 1" in France). It is recognized by the French Ministry of Higher Education and allows you to pursue your studies in Masters programs around the world (access to "Master 2" in France). The Bachelor in AI, Data and Management Sciences program has also been awarded the prestigious French "Grade de Licence" recognizing its high quality and embedment into research.



STRUCTURE OF THE PROGRAM

	Year 1	Year 2
Fall	Host campus CentraleSupélec - Saclay*	Host campus ESSEC Business School - Cergy*
Spring		
Summer		Internship - 3 months

* During the first 2 years, 75% of the courses are delivered by professors of the school hosting students, and 25% of the courses by professors of the other school.
Example: Fall of Year 1: 75% of the courses from CentraleSupélec professors, 25% of the courses by ESSEC professors.

	Year 3	Year 4	
Fall	Host campus ESSEC Business School - Cergy*	Corporate Research Project	Host campus CentraleSupélec - Saclay*
Spring	International Exchange (Business or Engineering) Thesis	Internship - 6 months	
Summer	Research work in the field of specialisation		



WHAT WILL YOU LEARN?

CURRICULUM*

MANAGERIAL DISCIPLINES	
<p>Core Management courses to understand companies</p> <ul style="list-style-type: none"> Marketing, Organisational Behaviour, Financial Accounting, Corporate Finance, Operations Management... 	<p>Management & Governance of Data & Technology</p> <ul style="list-style-type: none"> IS/IT management, AI strategy, Data law & Intellectual Property, Ethics...
<p>Economics as a tool for modelling</p> <ul style="list-style-type: none"> Micro, Macro, Network & Digital economics... 	<p>Humanities & understanding of society</p> <ul style="list-style-type: none"> Society & Geopolitics, Philosophy of Science, Negotiation, Responsible Leadership, Climate and energy transition, Intercultural management, Knowing oneself and teamwork, Entrepreneurship, Diversity...
<p>Business Analytics to understand how companies benefit from data & AI</p> <ul style="list-style-type: none"> Econometrics, Forecasting, Business Data Science, Decision Analysis, Business intelligence, Excel & digital tools, Data Visualization & Design... 	<p>Business English</p>

ENGINEERING DISCIPLINES	
<p>Maths</p> <ul style="list-style-type: none"> Mathematics for Data Analysis, Engineering & Management; Probability and Statistics for Data Analysis & Management; Optimization and Machine Learning methodology. 	<p>Data science</p> <ul style="list-style-type: none"> Understand and analyze data to explore and influence digital markets and society; Identify useful tools in data panorama to support decisions and strategic processes in companies; Use data in the strategic decisions.
<p>Computer science</p> <ul style="list-style-type: none"> Identify requirements and formalize problems to design and implement innovative algorithms; Discover opportunities of technologies and processes; Develop changes in techniques for Sustainable Business In Society. 	<p>AI</p> <ul style="list-style-type: none"> Apply AI techniques to overcome computational complexity of algorithms and problems; Handle and recognize useful and innovative Artificial Intelligence techniques in specific use cases.

* This list of courses may be subject to evolve.

YOUR STUDY PLAN

STRUCTURE OF THE PROGRAM ACADEMIC OBJECTIVES

First Year	Second Year	Third Year	Fourth Year
<p><i>Introduction and consolidation of knowledge and fundamental skills.</i> Revise and acquire the fundamentals of mathematics, coding, economics & management, statistics, and technology necessary to successfully study the following subjects. Know how to define and identify challenges and opportunities through data analysis, as well as issues in social and behavioural sciences.</p>	<p><i>Consolidate core knowledge and develop skills in data science and business analytics.</i> Leading technologies and tools in AI and data science. Manage programming, database, machine learning, and big data. Apply statistics and mathematics to problem-solving and data analysis.</p>	<p><i>Introduce AI and reinforce modelling competencies in relation to management science and the corporate world.</i> Being conscious of real-world challenges and opportunities in the economy and environment using the technologies and gaining an international perspective.</p>	<p><i>Finalize your experience and build your expertise through applied research and professionalisation.</i></p>

LANGUAGES

The BSc AIDAMS program offers language courses in **Spanish** and **Chinese** dedicated to French speakers and **French** courses for international students. These courses aim to equip students with the necessary linguistic skills and cultural understanding to thrive in a global business environment.





INTERACT WITH MAJOR COMPANIES

CAREER SERVICES

Career guidance and support to students and graduates are provided in order to help them find and pursue their chosen dream career.

Career Portal: about 6,000 job offers and 21,000 internship offers each year.

To help you see more clearly, the career services team offers a complete service to support you, answer your questions and help you move forward. You will:

- Develop interpersonal and professional skills and perspectives that will be valued in your future internships and career.
- Find an internship that will allow you to further your career plan.
- Define your professional project through numerous coaching workshops led by specialists.
- Learn more about the professional world and find internships during recruitment events and panel discussions with our corporate partners.
- Prepare your CV and your job interviews.
- Acquire all the skills that will help you strive during your career.

Individual meetings with career counsellors

Meet-and-greet with business professionals

Recruitment fairs with more than **500** companies

On-campus career fairs specialized in certain fields: finance, consulting, start-up and innovative companies

BENEFIT FROM 2 POWERFUL NETWORKS

ALUMNI WORLDWIDE

Enrolling in the BSc in AI, DATA and Management Sciences makes you a member of both ESSEC Business School and CentraleSupélec global alumni communities. As a student and graduate you are able to leverage this significant network as alumni stay involved and in touch with each other and the schools. As well as sharing their experience with students, they also organize events all over the world via the various local chapters, conferences, round tables, brainstorming sessions, get-togethers, etc.

69,000

ESSEC Business School alumni

45,000

CentraleSupélec alumni

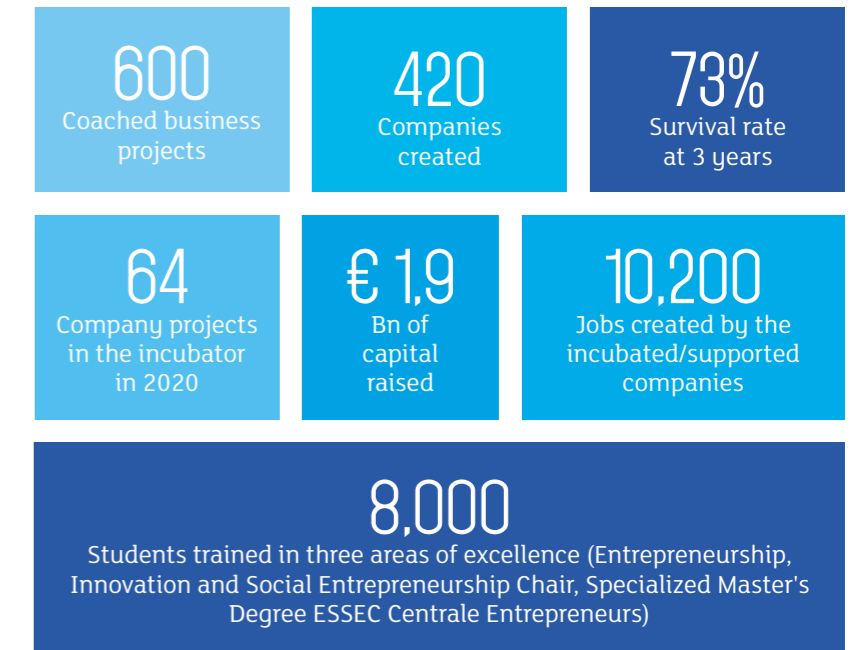


ENTREPRENEURSHIP AND INNOVATION

CENTER FOR ENTREPRENEURSHIP AND INNOVATION ESSEC BUSINESS SCHOOL

Since its creation, ESSEC has always cultivated a spirit of entrepreneurship and innovation, which lies at the very core of its educational approach, research, and managerial practices.

KEY FIGURES



CENTER FOR ENTREPRENEURSHIP AND INNOVATION CENTRALESUPÉLEC

CentraleSupélec incubator

Since 2001, the CentraleSupélec incubator has welcomed, supported and accelerated start-ups with innovative and ambitious projects with a scientific or technological dimension.

KEY FIGURES



CAMPUS LIFE

1 PROGRAM, 2 CAMPUSES



ESSEC CERGY CAMPUS (FRANCE)

Welcome to ESSEC Business School's original campus located only 35 minutes away from Paris. ESSEC established its original campus in this student haven in 1973. Set in a vast green space, the campus features the very best teaching tools: auditoriums equipped with facilities, libraries rooted in the digital era, language labs, etc. It is also a convivial site with places to eat, student residences, sport facilities, practical services, and more!

CENTRALESUPÉLEC

In 2017, CentraleSupélec opened the doors to its brand new Saclay campus, in Gif-sur-Yvette: 105,000 m² of excellence and innovation comprising 4 buildings, two of which are completely new and modern. This facilitates exchange and interdisciplinarity. Located 25 km south of Paris, it is part of the Paris-Saclay University, which is ranked 1st in France and 13th in the world in the Academic Ranking of World Universities (ARWU). You can also find numerous sports facilities, restaurants libraries and more!

LEARNING CENTER

The Learning Center is the ESSEC library. Located at the heart of the Cergy campus, the Learning Center is a 2000 m² space on two levels offering more than 300 seats. It provides rooms for individual or teamwork and direct access to more than 50,000 documents. The Learning Center also includes the Knowledge-Lab, an innovative space dedicated to Research and Pedagogy.



CentraleSupélec's campus houses significant joint equipment such as student accommodations, top-tier research laboratories, libraries, collaborative workspaces. You can also find the Fabrique CentraleSupélec, center of resources and expertise of 1200 m² in the fields of electronics, mechanics and IT, an incubator of 30 places.

STUDENT LIFE

You can join to enjoy your student life to the fullest more than 100 student associations. Here is a taste of the wide variety of clubs you could join:

- **Culture:** orchestra, musical theater, improvisation and magic, cinema...
- **Professional:** the Junior Entreprises, Engineering forums, ESSEC Transaction...
- **Games and strategy:** chess club, escape games and role-playing theater...
- **Creative:** video club, photography, radio...
- **Sports:** rock-climbing, soccer, rugby, ski, sailing, running...
- **Student councils**
- **Humanitarian:** school support and/or development help (e.g. rehabilitation) in several countries worldwide.

Joining a club will help you develop life and professional skills as well as teach you how to manage a team and deal with responsibilities, all of which can only benefit your future career. This will also enable you to diversify and strengthen your social life and general well-being while learning the meaning of responsibilities and commitment.



ACCOMMODATION

Comfortable and well-equipped rooms and studio apartments as well as other amenities to help simplify day-to-day life.

CENTRALESUPÉLEC - SACLAY

The first year of the program will be held at CentraleSupélec in Saclay. The Student Service offers residence options on campus so you can live the full experience during your studies.

ESSEC BUSINESS SCHOOL - CERGY

For the second year of the program, BSC AIDAMS will be held at ESSEC Business School in Cergy thanks to the housing service on campus ALEGESSEC.





WHAT TO DO NEXT?

ENTER THE JOB MARKET

■ Positions that combine business studies & analytics:

- Product Manager, Business Analyst, Project Management, Digital Marketing, Consulting, Data Scientist/Analyst...

■ Across different industries:

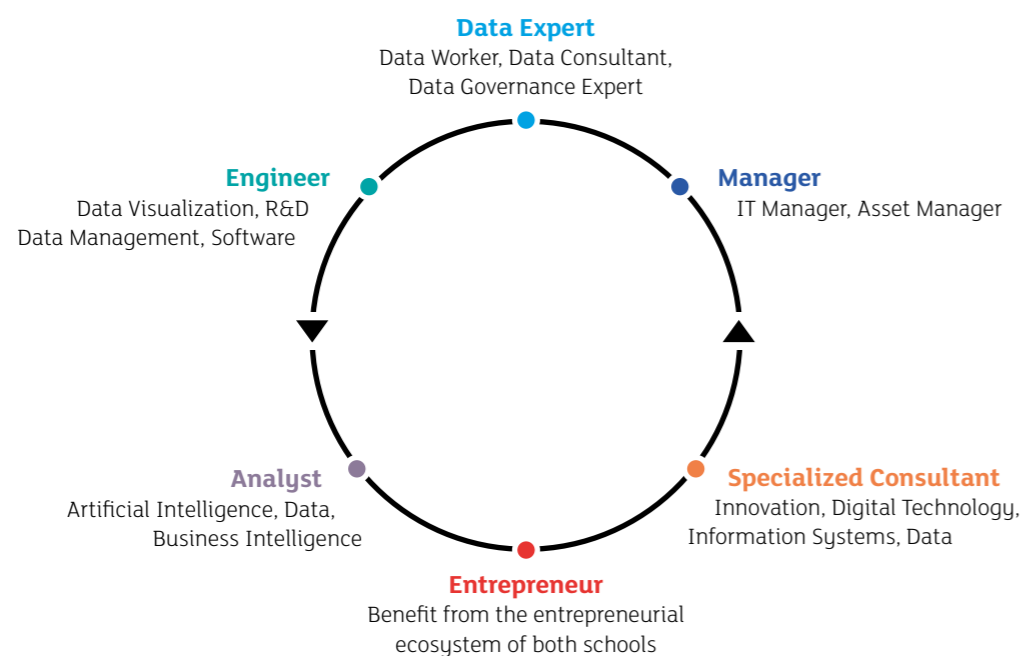
- Web/digital/software, finance, consulting, medicine, electronics/industries, business...

■ Continue at a Master's level:

- Management (MiM), Engineering, Digital Marketing, Business Analytics and Decision Making, Finance & Financial Engineering, Data Science, Machine Learning, IS Management, AI...

- **Be an entrepreneur** and launch your own start-up thanks to both ESSEC Business School and CentraleSupélec incubators.

AFTER GRADUATION - TYPES OF JOBS



WHO CAN APPLY? HOW TO APPLY?

STUDENT PROFILE

- Strong in quantitative disciplines
- International dimension
- Engagement
- Motivation
- Excellence

WAYS OF ADMISSION

- Apply with an international high school diploma
- Apply with a French baccalaureat (Parcoursup process)

YOU WANT TO KNOW MORE AND START YOUR APPLICATION

JOIN US ON OUR PROGRAM PAGE ON:



www.essec.edu





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