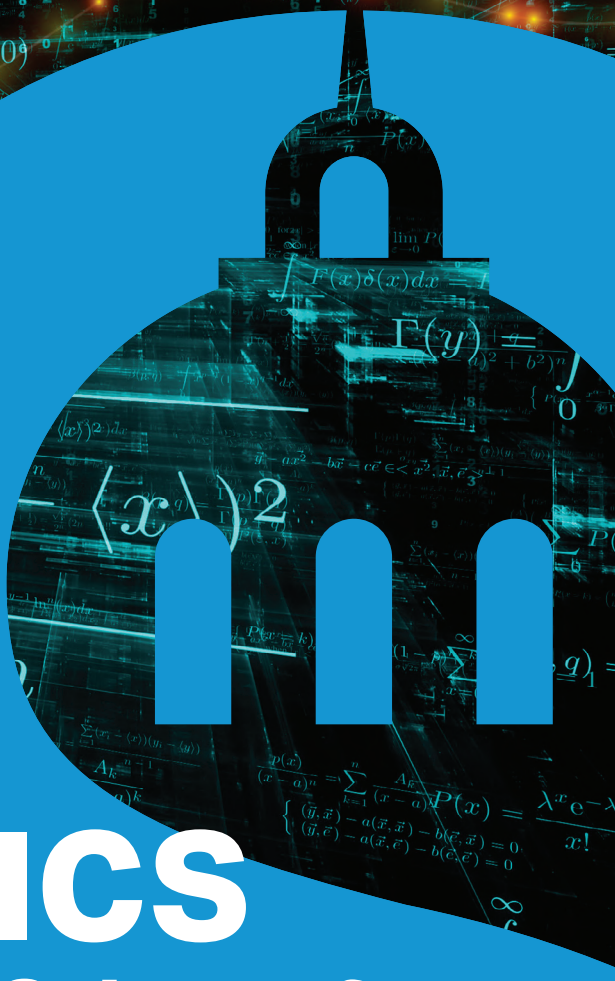
SORBONNE UNIVERSITY ABU DHABI





Bachelor in
MATHEMATICS
Concentration in Data Science for Artificial Intelligence

2025

overview

The Bachelor in Mathematics, Concentration in Data Science for Artificial Intelligence degree is awarded by Sorbonne Université in Paris and delivered by world-class academics in Sorbonne University Abu Dhabi. The programme is a three-year, intensive, high level programme taught in English. The programme aims to address the needs of the fourth industrial revolution to be brought about by Artificial Intelligence (AI).

Artificial intelligence is completely remodelling today's societies, and many argue that AI is fostering a fourth industrial revolution. Advances in Machine Learning are profoundly transforming technology. Based on recent discoveries in Mathematics and Data Science, complex algorithms embedded in modern systems allow us to accomplish more complex tasks (decision-support systems, human-machine interaction and intelligent agents, etc). Today, AI-based applications that require a deep knowledge of Mathematics and Data Science can be found in many fields, ranging from Insurance and Finance, to Health and Medicine, Environmental studies, Space exploration and Digital Humanities.

The aim of this programme is to equip the 21st century graduate with the necessary knowledge and an appropriate skillset to start a career in AI, and contribute to its reshaping, be it as a modern professional or as an accomplished researcher.

The programme, provides students with a comprehensive background and state-of-the-art techniques in Mathematics, Data Science and Machine Learning, and offers a carefully devised blend of traditional lecture/tutorial/lab tuition and more innovative project-based learning. This will produce graduates who are able to apply their sharp competencies, autonomously and critically, in the various fields of A.I.

Graduates of the Programme will obtain a Bachelor degree in Mathematics from Sorbonne Université (ranked #4 in the world in Mathematics, as per Shanghai subject rankings in 2023) as well as a Certificate of Specialisation in Data Science for Artificial Intelligence of the same institution.

The curriculum follows the European ECTS system and the degree is awarded by Sorbonne Université in Paris.

programme

→ First Year

- Mathematics for Sciences 1 (calculus)
- Computer Science (Python)
- Mechanics – Physics
- Philosophy and Ethics of Artificial Intelligence
- Mathematics for Sciences 2
- (basic linear Algebra and Probability)
- Complements in Analysis and Linear Algebra
- Introduction to Mathematical Logic
- Descriptive Statistics and introduction to R
- Project in Descriptive Statistics
- Integration to the world of work
- Languages

→ Second Year

- Sequences and series of functions
- Topology and Analysis 1
- Linear and Bilinear Algebra 1
- Discrete Probability, Combinatorics and Graphs
- Introduction to Probability models
- Lebesgue Integration Theory and complements in Probability Theory
- Linear and Bilinear Algebra 2
- Multivariate Data Analysis
- Languages

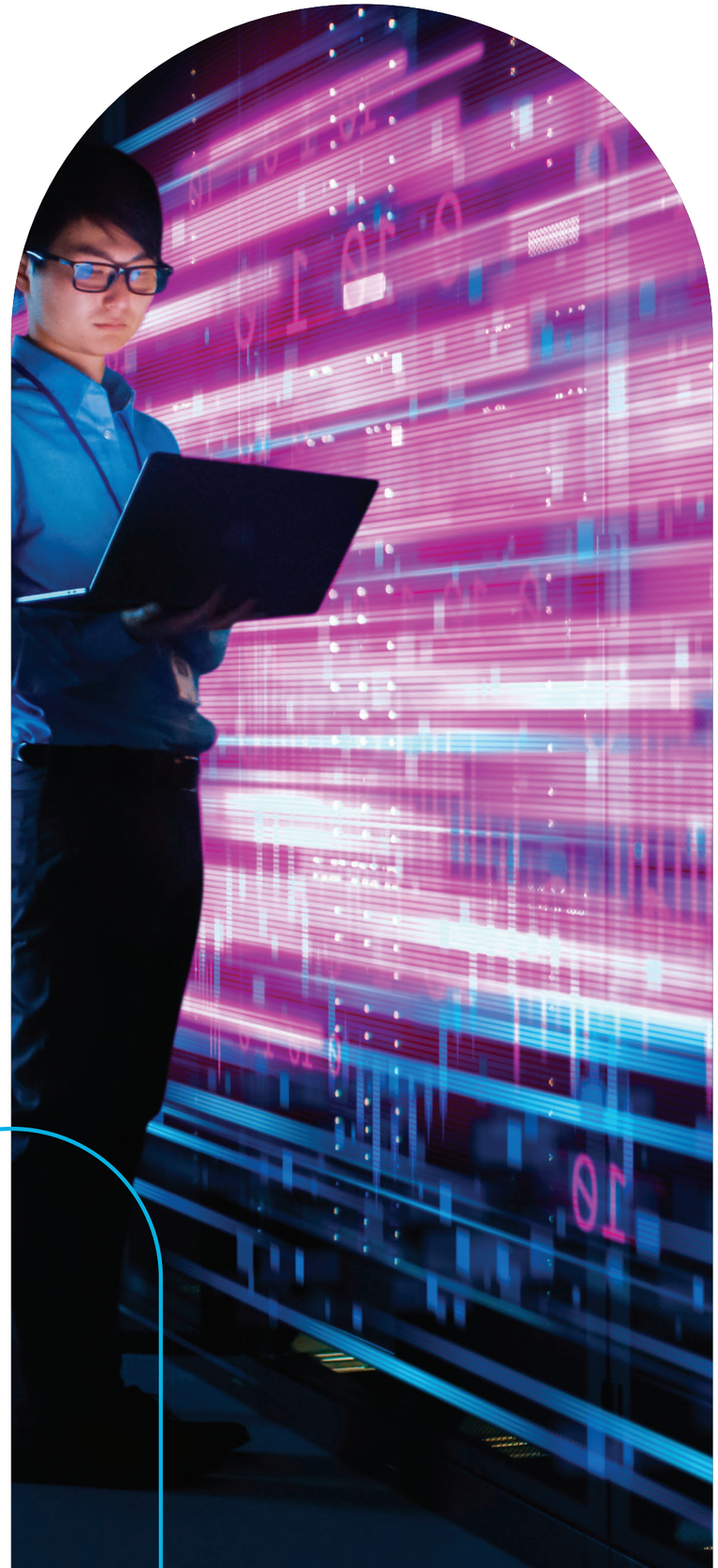
→ Third Year

- Measure and Integration Theory
- Topology and Analysis 2
- Numerical Analysis and Optimization
- Statistical Inference
- Advanced Probability Theory
- Functional Analysis
- Data Science and Machine Learning
- Integration to the world of work
- Languages

Career prospects

This degree provides graduates with key competencies for the job-market of tomorrow: mathematics, data science and artificial intelligence.

Example career paths: Data Analyst/Scientist/Engineer, Machine Learning Engineer, Statistician, Quantitative Analyst (in insurance and finance), Software Developer in Machine Learning/AI, Computational Linguist/NLP Engineer, Human-Centred Machine Learning Engineer, Business Intelligence Analyst, Business Analyst, Systems Analyst and Marketing/ Operations Analyst.
Research/Academia: students can pursue master's and PhD degrees in fields related to mathematics, Data Science and Artificial Intelligence in Renowned Research Institutions around the world.





Admission requirements

The following are the minimum criteria required to apply for direct entry to the programme:

- Minimum average of 12 out of 20 for French general baccalaureate or equivalent for the francophone curriculum.
- Ministry of Education curriculum: Advanced stream: minimum average of 75%.
- Other high school systems: high school certificate equivalent to the UAE Ministry of Education high school with minimum average of 80% or equivalent .
- Students who hold regional or international Mathematics Olympiad awards will be taken into consideration based on their achievements.
- Language requirements:
  - Ministry of Education curriculum: Minimum score of 80% in English subject in high school
  - For curriculums studied in English Language: No English requirement needed
  - For other curriculums: Valid academic IELTS certificate with minimum overall band of 5.5 with a validity of 2 years or TOEFL score of 530, IBT TOEFL certificate with minimum score of 71, CBT TOEFL of 197 with a validity of 2 years or equivalent (can be applicable for national curriculum).
- Mathematics competencies:
  - For French Baccalaureate applicants: A minimum score of 12 out of 20 in the specialty “Mathematique Spéciales” and/or the specialty “Mathematiques expertes”
  or Passing SUAD Admission test for L1
  or SAT Mathematics with score at or above 750
  - Other high school systems: Minimum score of 80% in Mathematics subject in other high school systems, and having one of the below conditions:
    - SUAD Admission test for L1, or
    - SAT Mathematics with score at or above 750
- Competencies in one other Science subject (Physics, Chemistry, Biology – including SVT): Subject studied in school with minimum 12 out of 20 in Grade 10, 11 or 12 (for holders of French Baccalaureate) or with a minimum score of 80% in Grade 10, 11 or 12, for holders of other HS Diplomas.

Other Countries Education’s Systems

Conditions apply to other foreign curricula in accordance with the admission policy set by Sorbonne University Abu Dhabi.
For further information, please contact the Student Recruitment Office at admissions@sorbonne.ae.

Sorbonne University Abu Dhabi is committed to considering applications from all students regardless of their country of origin, income, gender, religion or physical condition.

Tuition Fees

(Including admin. fees - over 3 years)

AED 215,100 (approximately US$ 58,615)

Up to 100% scholarship available for this programme!**
To learn more

Click:
https://www.sorbonne.ae/fees-and-scholarships scholarships/

or Scan:

***Terms and Conditions apply*

Why Sorbonne University Abu Dhabi ?

In today’s fast-paced and globalised economies, knowledge and languages both serve an important role in creating progressive and vibrant societies. The French education system is known for its high level of rigorous critical thinking and debating skills, which play a significant role in developing future pioneers and leaders.

Sorbonne Abu Dhabi is a globally recognised education institution that serves as a bridge between civilisations by offering a multicultural environment, which promotes and develops a strong culture of tolerance, curiosity, harmony and cultural awareness for today’s modern economy. Students have access to internationally acclaimed faculty, world-class facilities and internationally certified degrees, which places them firmly on the right path in preparation for a successful career.

This degree is officially accredited by the UAE Commission for Academic Accreditation (www.caa.ae).



SORBONNE
UNIVERSITY
ABU DHABI

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