

# Why Sorbonne University Abu Dhabi?

In today's world, it has become a necessity to broaden possibilities, improve capacities and develop leadership skills. The Department of Continuing & Executive Education at Sorbonne University Abu Dhabi offers specialised programmes that are designed for individuals and entities to enhance professional development and career growth. These programmes are tailored to the current market needs and can be also developed upon the request of private and public entities.

All programmes are prepared in collaboration with the academic teams of the Sorbonne University in Paris in order to meet the standards of excellence offered by Sorbonne University Abu Dhabi.

CONTINUING &  
EXECUTIVE EDUCATION  
DEPARTMENT



SORBONNE  
UNIVERSITY  
ABU DHABI

## Machine Learning and Artificial Intelligence



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# High-level training in Machine Learning and Artificial Intelligence, delivered by world-class experts.

The training, taught in English, offers a uniquely devised blend of lectures and practical classes, specifically tailored to the needs of the twenty-first century professional. By acquiring sharp competencies in the models and the tools of machine learning and big data, trainees will be able to bring about sought after critical innovation in technological, innovation-thirsty societies. Moreover, they will develop a mature understanding of the opportunities and challenges posed by a large-scale use of artificial intelligence devices (such as text mining, analysis of complex networks, image processing and online advertising etc.).

The training consists of three 30 hour Teaching Modules, each spanning a full week. The three modules are scheduled to be delivered with a frequency of one module per month for three consecutive months.



## Module 1

(30 hours)

- Fundamentals in Mathematics and Statistics.
- Mathematical Tools for Machine Learning.
- Fundamentals in Computer Science.
- Machine Learning Algorithms: Supervised Learning.

## Module 2

(30 hours)

- Machine Learning Algorithms: Unsupervised Learning.
- Deep Learning.
- Applied Deep Learning (Tensorflow and PyTorch).
- Ethics of Artificial Intelligence.

## Module 3

(30 hours)

- Cloud and Big Data.
- Virtualisation in Big Data.
- Artificial Intelligence in Actuarial Sciences (Finance and Insurance).
- Applications of Artificial Intelligence.
- Ethics of Artificial Intelligence.

## Course instructors

The training is delivered by a team of Associate and Full Professors of Sorbonne University and Sorbonne University Abu Dhabi, carefully selected for their world-class expertise in the domains of Mathematics and Computer Science, thus representing at its best the high international standing of the institution.

## Admission Requirements

The audience is expected to be familiar with some basic to intermediate-level notions of Mathematics, Statistics and Computer Science.

## Programme outcomes

**The programme delivers state-of-the-art competencies in:**

- Mathematical and computational tools of data processing and artificial intelligence.
- Computational tools associated with cloud computing and big data.
- Machine learning models and in particular, deep learning.
- Understanding the professional and regulatory opportunities and challenges linked to handling data, especially in the fields of insurance and risk management.

### Tuition Fees AED 54,000

Discounts are available for this programme\*:

- 20% Alumni discount
- 5%-15% corporate offer

Visit the CEED page on our website for more information.

\*Conditions apply