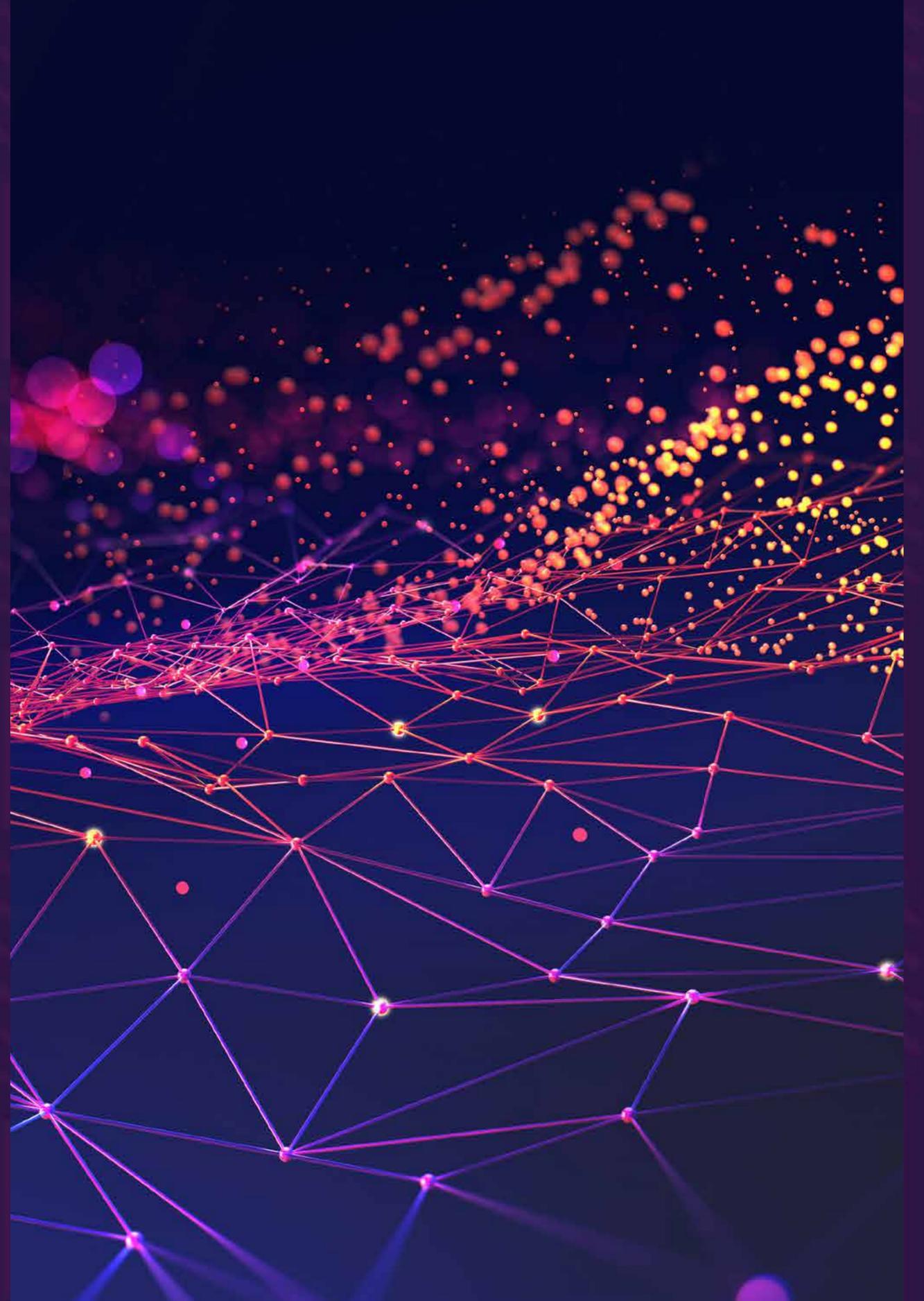# MBA USP ESALQ
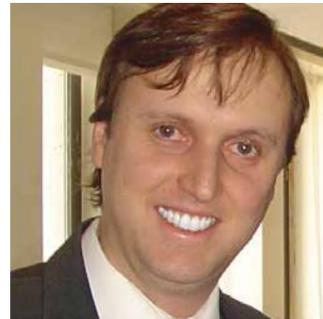
MBA IN DATA SCIENCE & ANALYTICS

ONLINE COURSE

"Increasingly complex scenarios have required different competences from managers and decision-makers. It is of fundamental importance, for Data Science and Analytics professionals, the constant update and development of multidisciplinary skills and knowledge that will make all the difference in their professional life."

Luiz Paulo Fávero, USP vice-coordinator of the MBA USP/Esalq in Data Science and Analytics.

OUR MASTERS

Luiz Paulo Fávero

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Fabiano Guasti Lima

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Rafael de Freitas

Wilson Tarantim

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Ricardo Limongi

Gino Terentim

Ana Carla Bliacheriene

Heliani Berlato

Rogiene Santos

COURSE PROGRAM

DATA SCIENCE AND BIG DATA IN BUSINESS ENVIRONMENT

Big data and Data Mining

Agile methodologies

Information technology (IT) and Technological Innovation

JavaScript introduction

Data Engineering

Business Intelligence and Data Visualization

Economic Conjuncture Analysis in Disruptive Technologies Scenarios

Analytics and Risk Management

Cloud Computing

Legislation in the Digital Environment (LGPD)

Special Topics in Business Techology Management

COURSE PROGRAM

SUPERVISED AND UNSUPERVISED MACHINE LEARNING MODELS

Database Structures, Types of Variables and Measurement Scales

Introduction to Machine Learning

Clustering

Factor Analysis and PCA

Simple and Multiple Correspondence Analysis

Simple and Multiple Regression Analysis

Binary and Multinomial Logistic Models

Models for Count Data

Multilevel Modeling

Time Series

COURSE PROGRAM

DATA SCIENCE AND ANALYTICS TRENDS

Data Wrangling

Spatial Analysis

Other Models of Machine Learning

Basic concepts for Deep Learning

Deep Learining

Data collection: Crawlers and Web Scraping

Text Mining, Sentiment Analysis and NPL

Operational Research and Optimization and Simulation Models

Change Management in the Digital Age

*Course Program subject to change

How are the classes?

Updated content with online and live classes

The best way to ensure updated content and interaction between students and professors is with live classes. Without leaving aside the flexibility, the classes are also online and are recorded for you to review as many times as you want until the end of the course.

Attendance

The attendance of students is counted by performing the tests and must be equal to or greater than 75%. This way, there is no loss for the students that cannot attend the live class, being able to watch it whenever and wherever it is more convenient to their routine.

Online and weekly tests

After each class, the students must perform a test that is available in the academic system for three weeks. There are 10 multiple choice questions and three attempts, being considered the highest grade to compose the final average (which must be equal to or greater than 7).

CERTIFICATE

USP

The MBA USP/Esalq is a Lato sensu graduate course. The approved student at the end of the course receives a specialist certificate from USP/Esalq. It looks exactly like the picture on the side! The certificates for distance education courses are the same as those for in-person courses.

REPÚBLICA FEDERATIVA DO BRASIL
UNIVERSIDADE DE SÃO PAULO
ESCOLA SUPERIOR DE AGRICULTURA "LUIZ DE QUEIROZ"

O PRÓ-REITOR DE CULTURA E EXTENSÃO UNIVERSITÁRIA
NOS TERMOS DO ARTIGO 74, PARÁGRAFO ÚNICO,
INCISO 5, ALÍNEA "B", DO
ESTATUTO DA UNIVERSIDADE DE SÃO PAULO,
CERTIFICA QUE

DE NACIONALIDADE BRASILEIRA,
PORTADOR DA CÉDULA DE IDENTIDADE
RG Nº
NASCIDO EM
E NATURAL DO

CONCLUIU O

CURSO DE EXTENSÃO UNIVERSITÁRIA
NA MODALIDADE DE ESPECIALIZAÇÃO:
MBA EM

E, PARA QUE POSSA GOZAR DE TODOS OS
DIREITOS E PRERROGATIVAS LEGAIS,
OUTORGA-LHE O PRESENTE CERTIFICADO.

PIRACICABA, 18 DE AGOSTO DE 2016.

DIRETOR
LUIZ GUSTAVO NUSSIO

PRÓ-REITOR DE CULTURA E
EXTENSÃO UNIVERSITÁRIA
PROF. DR. MARCELO DE
ANDRADE ROMÉRO

COURSE INFORMATION

Weekly live class, on Tuesdays from 7pm to 11pm (BRT, UTC-3)
The content remains recorded and can be watched at any time.

18 months duration + Final Paper Presentation
Schedule can be extended within up to 3 months due to national holidays and recesses.

Certificate USP

USP professors and professionals with renowned experience in the private sector

Final Paper presentation in an exclusive event

18x of R$ 590
Enrollment Fee of R$ 100
*Values valid for 2022

I WANT TO REGISTER

FREQUENT QUESTIONS

about the course

Does the course have practical classes?
Yes. The MBA in Data Science and Analytics has practical classes for the preparation of data analysis in languages such as R and SQL (hands-on), always based on the fundamentals studied and acquired and focusing on the decision-making process.

Is the MBA focused on Management?
In classes, several practical examples are used through real databases, from the market and coming from several areas, which provides the generation of outputs focused on the improvement of management. The MBA is focused on generating results for decision-making.

Which programming language will I see in the MBA?
Fundamentally, the course uses languages such as R and SQL. In each module, only one programming language will be used, in order to ensure the pedagogic sequence and to allow the knowledge development in a didactic and consistent way.

What statistical tools will we use in class?
During the course, students work with several statistical and machine learning tools, such as classification and grouping analysis (cluster), factor analysis by principal components (PCA), simple and multiple canonical correspondence analysis (Anacor and MCA), GLM, linear and non-linear regressive models, binary and multinomial logistical models, models for count data, zero-inflated models for rare events, GLMM, hierarchical and multilevel models, CARTS and decision trees, bagging, boosting, random forest, neural networks, Business Intelligence and also algorithm techniques and construction of deep learning, spatial analysis, crawlers, webscraping, text mining, sentiment analysis, natural language processing (NLP), operational research, optimization and simulation modeling among others.

FREQUENT QUESTIONS

institutional

How does the Final Paper work?

The Final Paper is mandatory for the completion of the course. Until 2019, the presentations were in person in Piracicaba/SP. However, the guidelines of social distance for 2020 modified some aspects and the whole event was performed online, including the Final Paper presentations. The classes of 2021 can choose between the in-person presentation (in Piracicaba/SP) or online.

Will there be an adjustment in the installments?

The installment will remain the same throughout the course, the first installment should be paid 15 days after the approval of the mandatory documents. The remainder may expire according to the preference indicated in the registration form.

Will I have someone responsible for my academic follow-up?

In the academic journey you will have a coursemother/coursefather to provide support and even answer questions. They will participate on the following steps of the course: adjustments, registration, academic follow-up or financial issues, and the final paper elaboration.

What documents will I need to attach?

An ID document and Higher Education Diploma (or Higher Education Certificate + Higher Education Records with the date of graduation) are required for approval.

Do MBA USP/Esalq students have a discount on some **International Program?**

Yes. Students on the MBA USP/Esalq courses have a 70% discount to attend the teaching programs offered by Pecege's partnership with the International Business School (IBS Americas).
For more information, contact our exclusive agent:
joao.guerreiro@ibs-americas.com.

University *of* La Verne

A
AMERICAS
INTERNATIONAL COLLEGE

IBS
INTERNATIONAL
BUSINESS SCHOOL
— AMERICAS —

MBA USP ESALQ

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