Artificial Intelligence & Business Transformation
WITH IRT SAINT-EXUPERY / TBS EDUCATION

RNCP certified N°35609
“Artificial Intelligence and Data science Project Manager (MS)”
(apprenticeship, initial and executive education, validation of experience)

Objectives
A manager in charge of the transformations needed to monetize data, notably using AI, is commonly known as a “Data Evangelist”. This Advanced Master targets a new profession through part-time training for high-potential technical specialists and managers (from scientific disciplines) with several years of work experience. Upon completion, students will be equipped with a solid culture in AI (along with the related big data) and will be able to work on the operational, intermediate or strategic level to manage projects where these new technologies play a role and teams in related new professions, such as big data engineers, data analysts, data miners and data scientists.

Learning approach
The program comprises 3 blocks:

168-hour teaching block for upgrading technical skills in AI, covering bulk data management and machine learning from a theoretical point of view (understanding solutions and large families of algorithms) and from a practical point of view (manipulations on simple examples, assessment of complexity and limits).

112-hour teaching block on business transformation by and for AI, covering the current impact of AI on various sectors, the implementation of a data value strategy and managing change in an AI context.

70-hour block of practical work to obtain high-level skills in business transformation through AI, with long-term examples covering all aspects of the training, whether strategic and tactical aspects from a business point of view, or a technical approach to move from data acquisition to a valuable product..

Five principles will be followed in all courses to adapt them to the students in training:
• Connections between the techniques and business;
• Developing concrete use cases;
• Discovering a variety of fields of application;
• Interactive teaching;
• Knowledge acquired is applied to a project on a common theme.

Organization

Head of the program
• Prof. Carlos AGUILAR-MELCHOR
  carlos.aguilar-melchor@isae-supaoero.fr

Course start date
October

Location
ISAE-SUPAERO

Teaching language
English

Syllabus
The associated program will comprise a core curriculum for all students, organized into 3 blocks:

Part 1: Artificial Intelligence Internals - 168 h
Data Integration and Exploration, Big Data Processing, Optimization Topics for AI, Machine Learning and Data Analytics, Sequential Decision Making in AI, AI certification, Robustness and Dependability.

Part 2: Business Aspects of Artificial Intelligence - 112 h
Introduction to Modern AI, The Business of Data, Data Value Creation, Change Management.

Part 3: Practical skills - 70 h
Hands-on practice

Professional Thesis:
Students will do personal work for a period of 4 to 6 months, leading to the individual defense of a professional thesis. This thesis may be prepared at the student’s company or during an internship, notably at IRT Saint Exupéry, for students who do not have an employer at the time of the course.

Career prospects
This program is organized with support from such major corporations as AIRBUS, AIRBUS HELICOPTERS, APSYS, COLLINS AEROSPACE, CONTINENTAL, DASSAULT AVIATION, ESI Group, STELIA, THALES ALENIA SPACE and CERFACS.
Course duration

Professionals (weeks / month)

October to June

Apprentices and young graduates (weeks / month)

October and November

December to June

Apprentices and young graduates, contact us for more information
Admission procedures

ADVANCED MASTERS

Academic requirements
A master’s degree, or an equivalent degree in science or engineering (or in management for advanced masters in management), or bachelor degree completed by 3 years of professional experience.

LANGUAGE REQUIREMENTS FOR ALL MASTERS
(including for Masters taught in French)

TOEFL (IBT) 88 points (Inst. code: 9820) or TOEIC 785 points or IELTS 6.5 points

or CAE/FCE 170 points or Linguaskill 170 points

NOTA BENE : Volume of teaching hours and contents of the programs are provided for information only and are subject to change.

LANGUAGE REQUIREMENTS FOR MASTERS IN FRENCH

Language qualification requested
Score B2-Common - European Framework of Reference for Languages

SELECTION AND ADMISSION

Selection and admission are made by an admission committee:
Possible interviews can be organized if necessary

Deadlines for application:
Applications open in October 2021
for a start of classes in September 2022.
Several admission committees are scheduled from January to July, see schedule on our website

Application website:

Funding
Information on tuitions fees and funding on our website

Your contacts

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