



## MASTER - Informatique

### Data Sciences and Artificial Intelligence (UFAZ)

#### Pré-requis obligatoires

Ce parcours est proposé **exclusivement** dans le cadre de l'[Université franco-azerbaïdjanaise \(UFAZ\)](#).

#### Compétences à acquérir

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#### Contact

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Langue du parcours	Anglais		
ECTS	120 ECTS		
Volume horaire			
TP : 0h	TD : 0h	CI : 0h	CM : 0h
Formation initiale		Oui	
Formation continue		Non	
Apprentissage		Non	
Contrat de professionnalisation		Non	

# Master 1 - Data Sciences and Artificial Intelligence (UFAZ)

## M1 Data Sciences - Semester 1

	ECTS	CM	CI	TD	TP	TE	Stage
Applied Mathematics	3 ECTS	12 h		9 h	9 h	45 h	
Mathematical methods and statistical analysis		12 h		9 h	9 h	45 h	
Programming	9 ECTS	33 h		30 h	27 h	135 h	
Data structure and Algorithms for Data Acquisition and Curation		21 h		21 h	18 h	90 h	
Project-mode applied programming in Python		12 h		9 h	9 h	45 h	
Imaging	3 ECTS	12 h		9 h	9 h	45 h	
Image Analysis with application to satellite images		12 h		9 h	9 h		
Artificial intelligence	6 ECTS	24 h		18 h	18 h	90 h	
Introduction to Deep Learning							
Introduction to Data Science							
Project work	6 ECTS	12 h		9 h	9 h	120 h	
Meta-heuristic algorithms							
Foreign Language	3 ECTS			21 h			
English 1				21 h			

## M1 Data Sciences - Semester 2

	ECTS	CM	CI	TD	TP	TE	Stage
Applied Mathematics	3 ECTS	12 h		9 h	9 h	45 h	
Operational Research and Modelling		12 h		9 h	9 h	45 h	
Artificial Intelligence	9 ECTS	36 h		27 h	27 h	135 h	
Data mining and processing		12 h		9 h	9 h	45 h	
Multi-agent systems and Collective		12 h		9 h	9 h		
Management and processing of massive data		12 h		9 h	9 h		
Programming	6 ECTS	24 h		18 h	18 h	90 h	
Distributed Algorithms		12 h		9 h	9 h		
Parallel programming		12 h		9 h	9 h		
Networking	3 ECTS	12 h		9 h	9 h		
Network services		12 h		9 h	9 h		
Project Work	6 ECTS	12 h		12 h	12 h	114 h	
Research project work							
Foreign Language	3 ECTS			21 h			
English 2				21 h			

## Master 2 - Data Sciences and Artificial Intelligence (UFAZ)

### M2 Data Sciences - Semestre 3

	ECTS	CM	CI	TD	TP	TE	Stage
Image	3 ECTS	12 h		9 h	9 h	45 h	
Image synthesis		12 h		9 h	9 h		
Artificial Intelligence	9 ECTS	36 h		27 h	27 h	135 h	
Massively parallel stochastic optimization and artificial evolution		12 h		9 h	9 h		
Symbolic AI and Explainability		12 h		9 h	9 h		
Advanced Deep Learning		12 h		9 h	9 h		
Professional skills	6 ECTS	12 h		36 h		102 h	
Project management and communication							
Professional Training		12 h		12 h			
Project Work	9 ECTS	9 h		15 h			
Master's project		9 h		15 h			
Foreign Language	3 ECTS	9 h		15 h			
French		9 h		15 h			

### M2 Data Sciences - Semestre 4

	ECTS	CM	CI	TD	TP	TE	Stage
Internship	30 ECTS	30 h					
Internship							