

**DATA SCIENCE
FOR HEALTHCARE**
COORDENAÇÃO: SANDRA MOREIRA

10H00-18H00
SALA PAQUITA

LECTURERS

LILIANA ANTÃO
JOÃO REIS

MODULE 1

Artificial Intelligence Introduction & Python Basics

- Introduction to Data Science technology and programming;
- Major examples of AI in Healthcare.

1 hour

MODULE 2

Data Wrangling

- Medical data visualization and pre-processing.
- Main medical databases and data access points.
- Medical exploratory data analysis.

2 hours

MODULE 3

Machine Learning - Unsupervised Learning

- Finding and optimizing hidden patterns in patient and healthcare data;
- Pattern profiling and actionable insights for healthcare data records.

1.5 hours

MODULE 4

Machine Learning - Supervised Learning

- How to correctly train and validate a machine learning model for disease prediction;
- Regression vs Classification tasks: patient risk score vs probability of having a disease.
- Explainability of predictions: Know why your model predicted a positive patient.

2 hours

MODULE 5

Data Science scenarios

- Discussion about real world data and machine learning challenges in medical projects.

1 hour