

**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**medtiles**