

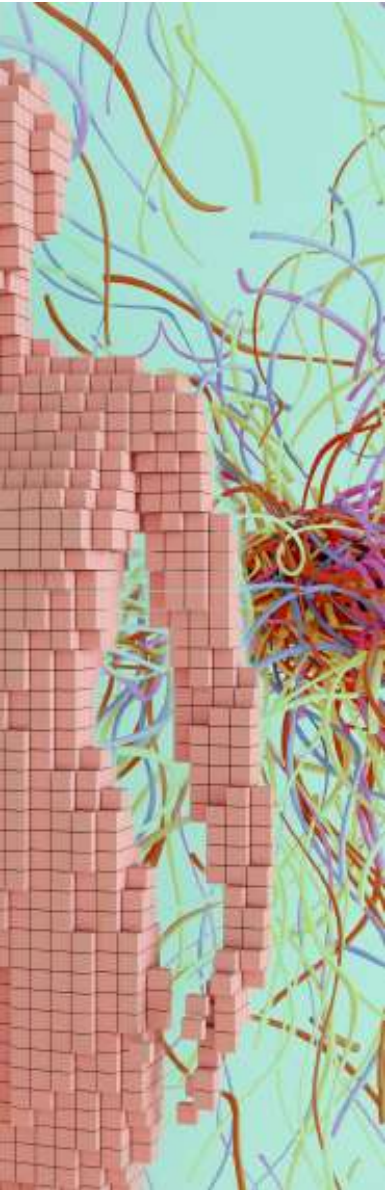


# Health Data Science

Postgraduation



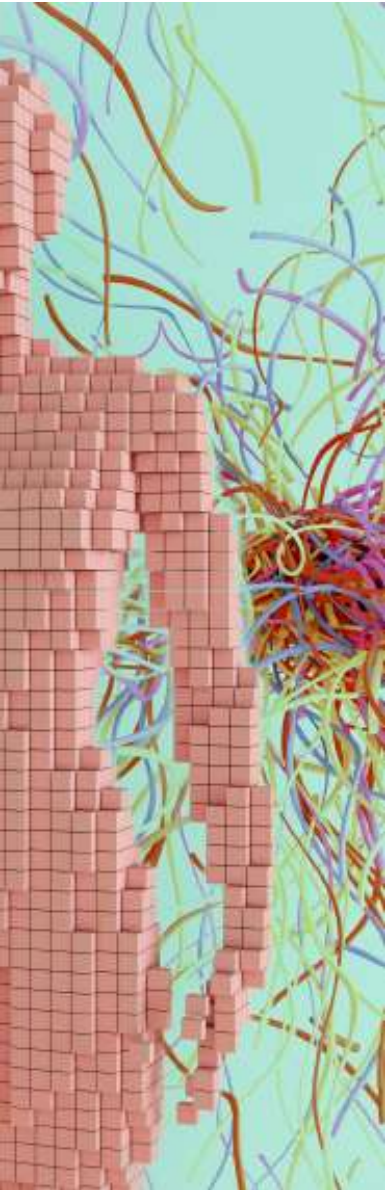
ESCOLA SUPERIOR DE  
TECNOLOGIA DA SAÚDE  
DE LISBOA  
INSTITUTO POLITÉCNICO DE LISBOA



## Why this course

Because optimizing your data science skills can improve your therapeutic options, your healthcare organization's outcomes and - most importantly - improve the health status of the population.

Because skills in health data analysis are as essential in an epidemic as in maintaining regular health care, thus crossing the different dimensions: clinical, risk assessment, management, etc.



## About this course

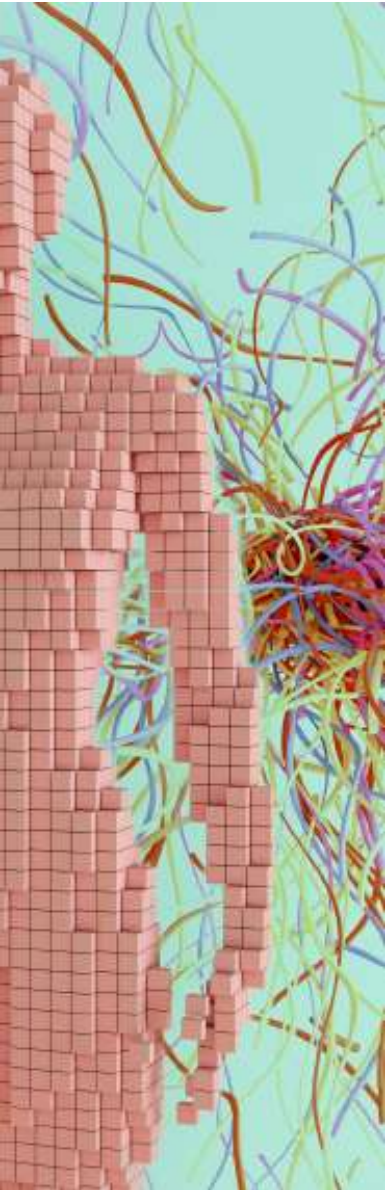


Meets data science requirements in the new health era, towards data-driven innovative health solutions.

This program is practical, cross-disciplinary and closely linked to Healthcare organizations and industry.

Blends Healthcare organizations with Academia & Research.

Focus on value creation and health outcomes, through a translational approach in health, informatics and mathematics.



## Who should take this course



Professionals with the desire to improve their analytical capacity in order to transform data into knowledge, who seek to solve new and challenging problems and intend to develop a career in an area with enormous potential for growth.

If you have a degree in health, management, engineering, mathematics, computing or similar areas and you work, or wish to work, in health organizations/health-related industry, this is an excellent opportunity to join our Team!

## About this course

**1year - 60 ECTS**



**I QUARTER**  
IDEATION

- \_Global and Population Health
- \_Analysis and Visualization of Health Data
- \_Challenges of Data Science in Health

**II QUARTER**  
SOURCES & PREPARATION

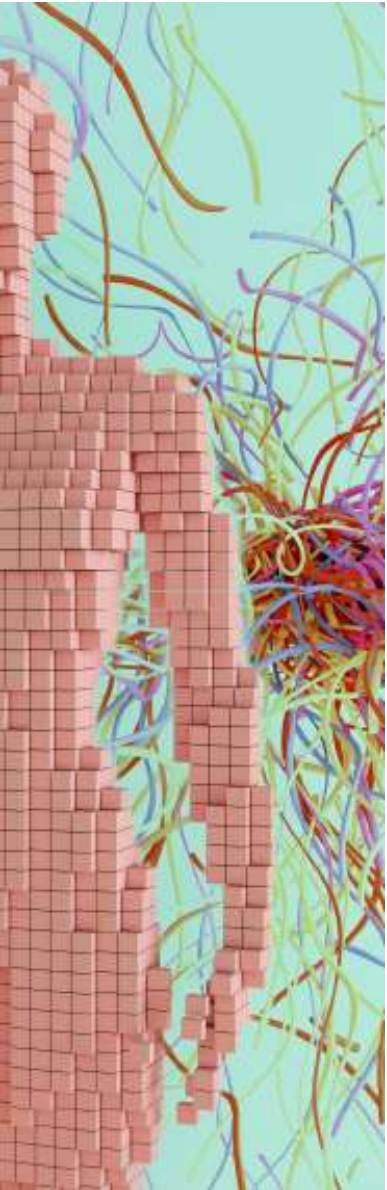
- \_Programming Fundamentals
- \_Databases and Data Management
- \_Research Design in Health Organizations
- \_Identification and Interpretation of Needs in the Context of Health Organizations

**III QUARTER**  
RESEARCH & DEVELOPMENT

- \_Multivariate Statistics
- \_Machine Learning
- \_Deep Learning

**IV QUARTER**  
VALIDATION & MONITORING

- \_Big data and healthcare data management
- \_National health information systems
- \_Innovation and entrepreneurship



## Program Council



**Carina Silva, ESTeSL**

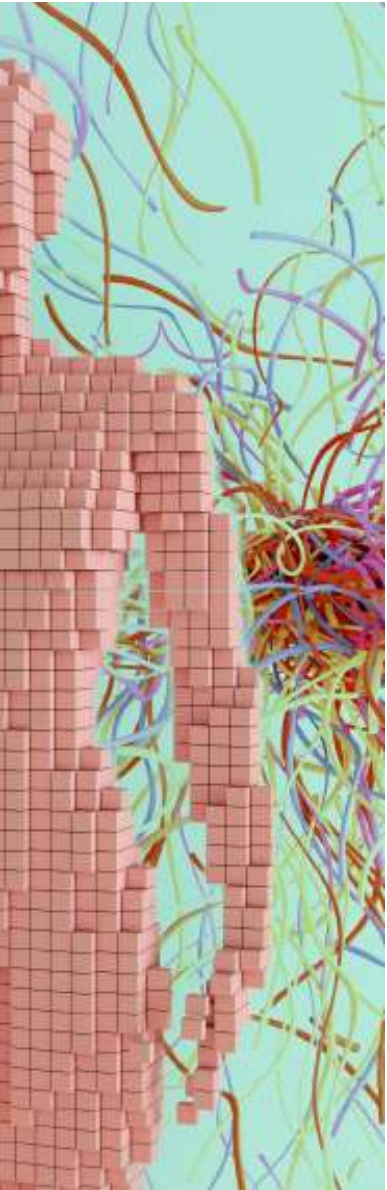
PhD Probability and Statistics  
Biostatistician  
Coordinator of the PG



**Gilda Cunha, ESTeSL**  
MSc Statistics and  
Information Management



**Marina Silva, ESTeSL**  
PhD Environmental Sciences



# Our Team



Marta Sousa, Habber Tec



Patrícia Narciso, Habber Tec



Margarida Eiras, ESTeSL



Pedro Nascimento, Habber Tec



Ana Marreiros, UAlg



Alexandra Cerqueira, HCBM



Gilda Cunha, ESTeSL



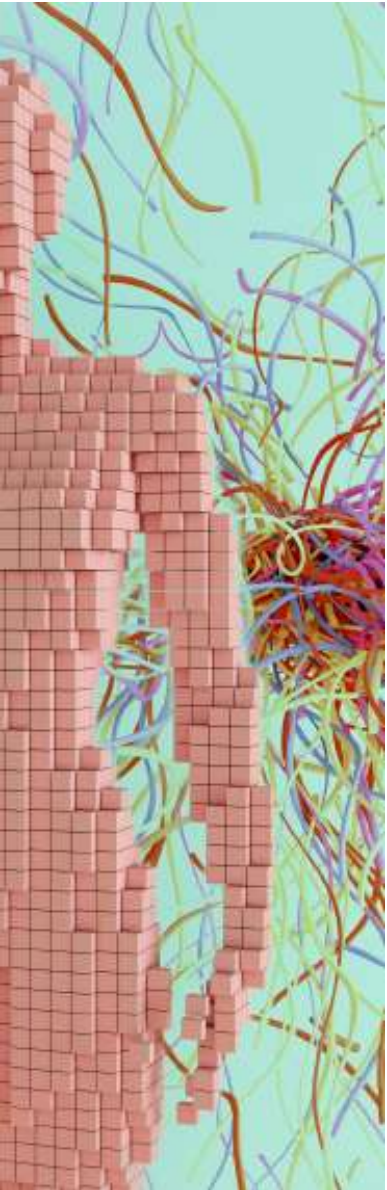
Marina Silva, ESTeSL



Carina Silva, ESTeSL



Bruno Trigo, BIQ Health Solutions



## What to expect **during** this program

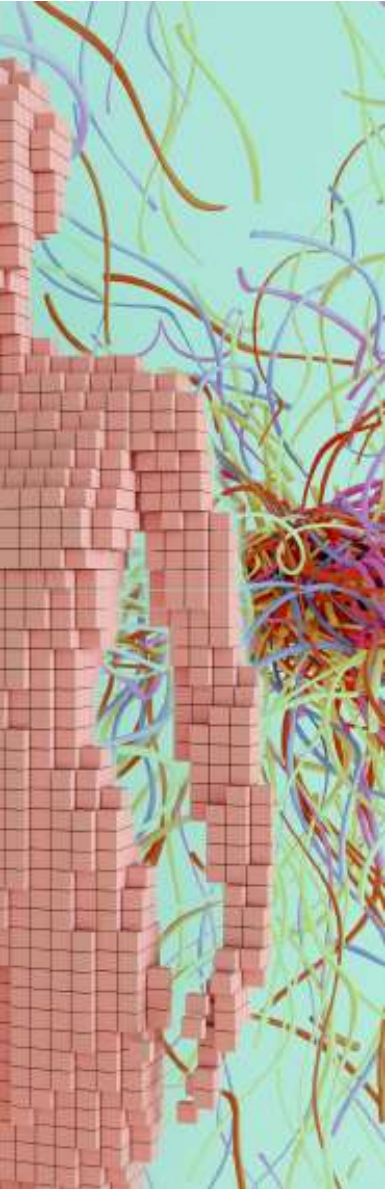


Student will gain skills in health data science with a solid academic background meshed with business methodologies to meet healthcare needs.

- fundamental concepts in data science such as statistics, machine learning, data visualization, and programming languages like Python or R. Additionally, there will be courses focusing on healthcare-related subjects such as epidemiology, healthcare systems, medical informatics, and bioinformatics.

- Practical Projects: You'll likely engage in hands-on projects where you apply data science techniques to real-world health-related problems. These projects could involve analyzing medical records, genomic data, clinical trials data, or health behavior data to derive insights or develop predictive models.

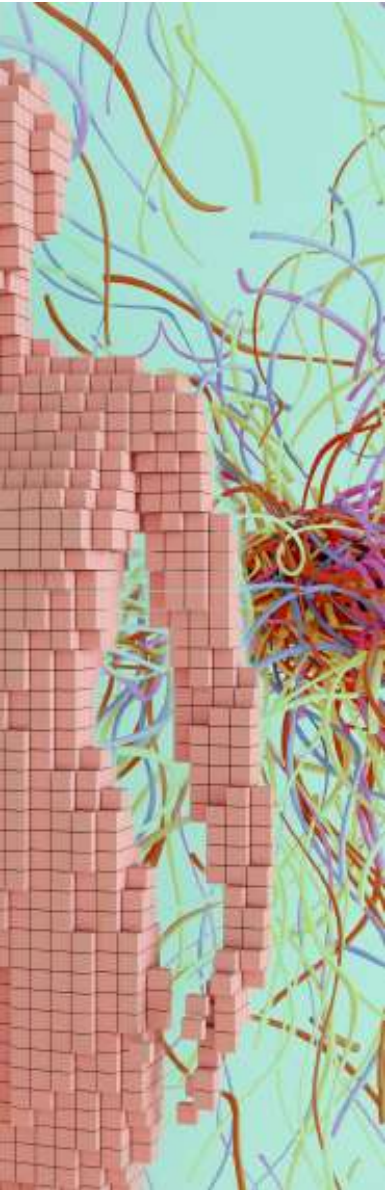




## What to expect **during** this program



- **Networking Events:** online and in-person
- **Mentoring:** Feedback and Evaluation, Professional Development, Career Advice
- **Coaching:** Overcoming Challenges, Skill Development, Goal Setting, Accountability



## What to expect **after** this program

Student will gain skills in health data science with a solid academic background meshed with business methodologies to meet healthcare needs.

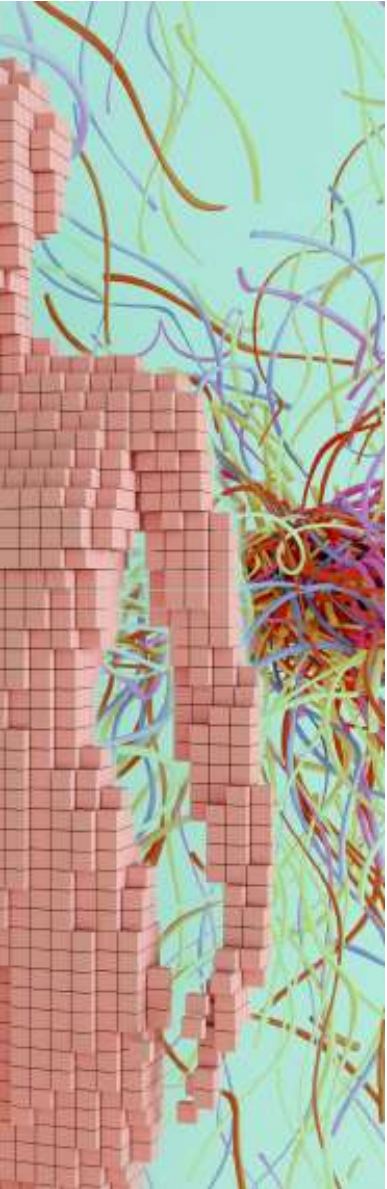
Employers include government and health institutions, technology companies, consulting and research firms.



Prize for the best student



Optional Internships

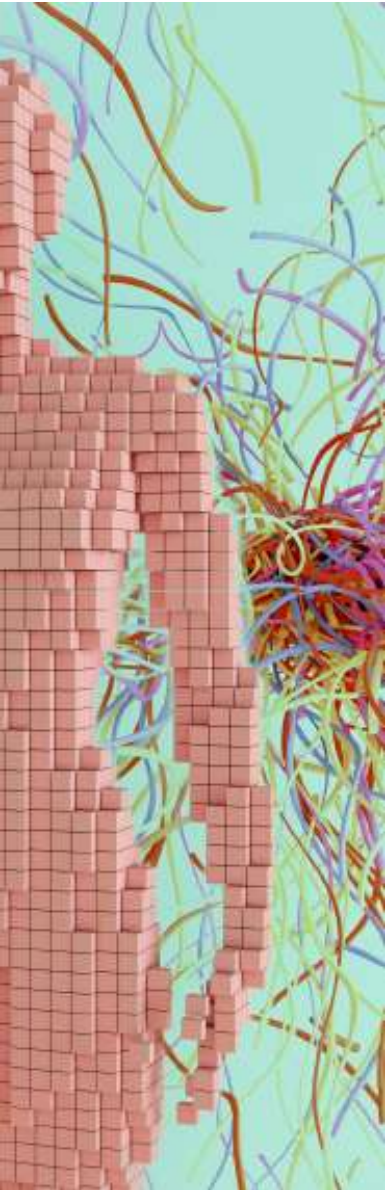


## Important dates

Kick-off Lesson: September

Classes will be held September 2024 to July 2025

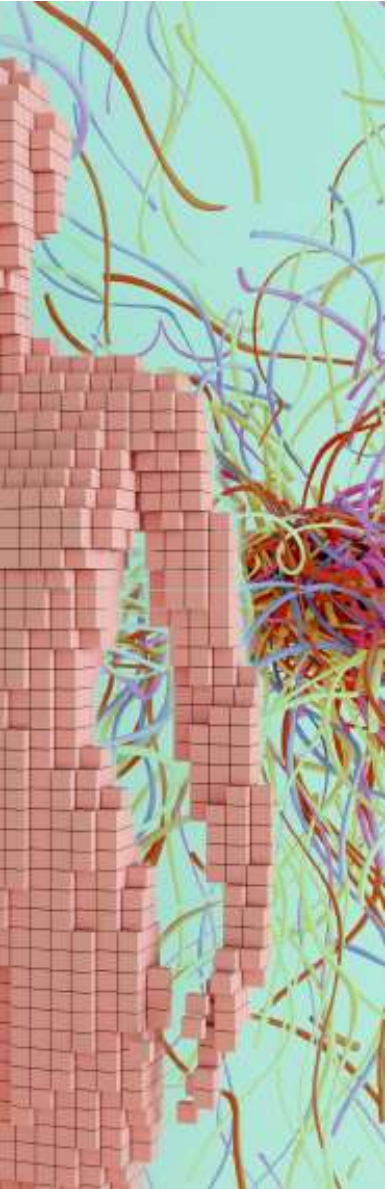
Online classes will be held on Thursday, Wednesday and Tuesday, from 5:00pm to 9:00pm



Stay tuned

Email: [hds@estesl.ipl.pt](mailto:hds@estesl.ipl.pt)

Page: <https://www.estesl.ipl.pt/cursos/pos-graduacoes/health-data-science>



CLEARING THE BOUNDARIES BETWEEN HEALTH AND  
DATA SCIENCE