

# MASTER PUBLIC HEALTH DATA SCIENCE

A year of international research in public health data, from project design to health data analysis and competent presentation of results. With multidisciplinary skills in epidemiology, informatics and statistics, the MSc will provide you with strengths and limitations of digital technologies and approaches in public health.

## MULTIDISCIPLINARY OBJECTIVES

Opening in September 2018

**Epidemiology:** translating a public health/clinical problem into a research question, designing the research plan in the context of surveillance, observational and experimental studies (i.e. clinical trials), evaluating the validity and the causality of association.

**Statistics:** methods for supervised and unsupervised statistical analysis and modelling of biomedical data (including high-dimensional and time-to-event data), statistical learning, data mining, data integration, advanced computational statistics.

**Informatics:** architectures of data integration (I2B2, Transmart), interoperability, knowledge representation (terminologies, ontologies), natural language processing, visualization, programming, cloud computing and Hadoop, security, confidentiality and integrity of data.

The Digital Public Health Graduate Program, directed by Pr. Rodolphe Thiébaud, was conceived by the Bordeaux Population Health research center (BPH) and the Bordeaux School of Public Health (ISPED) funded by the third French Program on Investments for the Future (PIA3).

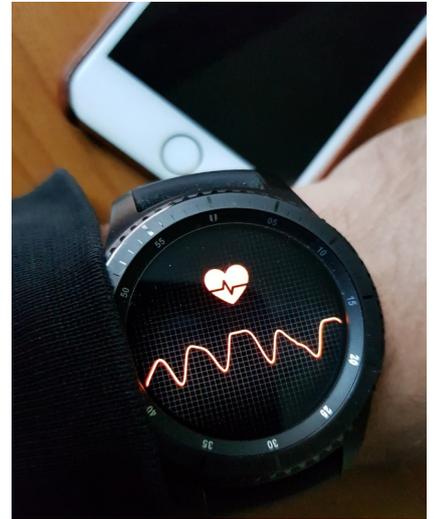
## PROFIL

Strong background in at least one of these disciplines (e.g. master level)

Place ISPED, Bordeaux, France

Nb student 25

Duration 1 year



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## Reasons to join in ?

- ◆ Original “data-centred” curriculum
- ◆ Interdisciplinary teams working on authentic case studies
- ◆ Practicum hosted by a research team or industrial partners
- ◆ Flipped classrooms which develop transferable skills



## TEACHING PROGRAM

### SEMESTER 3

Basics 6 ECTS

Electronic health data 6 ECTS

Digital cohorts 6 ECTS

Web-based data 6 ECTS

Omics data 6 ECTS

### SEMESTER 4

Value creation 6 ECTS

Practicum 24 ECTS

The Digital Public Health Graduate Program includes also the creation of:

- a Doctoral Program (PhD) open to students from all disciplines
- a novel University Diploma (DU) program on connected devices and e-Health

## Future career

Our Digital Public Health experts will have a global vision of the issues and future of epidemiology and public health, the research and leadership skills that will enable them to access data chief officers jobs and be the future leaders of the digital public health domain in public and private sectors.

Contact us [dph@u-bordeaux.fr](mailto:dph@u-bordeaux.fr) Info [facebook.com/DPHgraduateprogram](https://facebook.com/DPHgraduateprogram)