

# IE.3514 – Healthcare Systems Management

## General information

Title: Healthcare Systems Management Module leader: Mariam CAMARA Module ID: IE.3514 ECTS: 5 Average amount of work per student: 120 hours, including 45 hours supervised Teamwork: yes Keywords: Medical systems, shared medical record, public health.
--

## Presentation

Over the past few decades, the volume of medical knowledge has increased so rapidly that we are witnessing an unprecedented growth in the number of medical specialties and subspecialties. Bringing this new knowledge to the service of patients in an economical and equitable way has shaken our medical care system to the point where it is now declared in crisis. All these difficulties stem from the current, almost unmanageable volume of medical knowledge and the limits within which humans can process information.

Yet, providing better care, better health, lower cost, and a faster return to work is the new quest. And the heroes of health systems transformation are at the design of online medicine websites, health apps, YouTube content, homeopathic or home remedies, consumer health clinics, discussion spaces, and many other options for solving health systems problems.

But more than understanding the cracks in existing health systems, it is the desire to improve health that new systems and solutions could provide that will make "the right care at the right time and in the right place" happen.

## Educational objectives

### Specialized skills

- Solving Constraints, Multidisciplinary Scientific and Technical Problems in the Field of ICT
  - Solution Assessment
- Act in project mode

### Transversal skills

- Acting as a responsible professional concerned with strategic issues

*Prerequisite: None*

### Content/Program

This module addresses a practical approach to global health systems challenges and presents ways to address these issues. Small teams of students explore, identify and define new ways to manage one's health. And during the 24 hours devoted to the project, these teams choose a common health problem; Study what is not working and who should; Plans for current and future ecosystems; Explore new technologies and trends in health.

At the end of the module, each team created new usage models, prototyping new ways of doing things and developing the associated engagement strategies. This module aims to strengthen the competence to solve problems related to health systems.

## Concepts

- Health Systems, Review and Comparison
- Population and individual health
- The role of data, information and knowledge
- Empowering individuals through Digital Health
- Global health challenges
- Qualitative and quantitative user experience and health statistics
- Public health impact, health outcomes and measurable objectives of interventions
- Transforming healthcare through digital technology
- Spaces and locations for the delivery of care
- Consumer Fashion Health and Mobile Solutions
- Primary, secondary and tertiary care
- Coordination of care and continuity of pathways
- Privacy and security of digital health data
- Design thinking, Privacy and security by design, project and transformation management.

## Pedagogical methods

### *Learning methods*

- Lessons: 8 sessions of 3 hours
- Project: 8 supervised sessions of 3 hours

### *Evaluation methods*

The evaluation of this module is based on group activities of 2 to 4 students (graded project) and on an individual knowledge test at mid-term.

- The individual mid-term evaluation represents 40% of the final grade.
- The collective evaluation of the project through defenses (demo 15 pts + defense 5pts) represents 60% of the final grade.

### *Language of work*

Module entirely taught in English, student productions in English or French, as desired.

## Bibliography, Webography, Other sources

- F. Guillemin – F. Kohler – C. Lejeune et al. Comparative analysis of health systems: [http://ressources.aunege.fr/nuxeo/site/esupversions/6dfeaa1a-67f2-42a9-84b6-834f79bc3f51/AnaComSysSan/co/ACSS\\_web.html](http://ressources.aunege.fr/nuxeo/site/esupversions/6dfeaa1a-67f2-42a9-84b6-834f79bc3f51/AnaComSysSan/co/ACSS_web.html)
- RE Hoyt, AK Yoshihashi - 2014 Health informatics: practical guide for healthcare and information technology professionals
- Diabetes Technol Ther . 2020 Dec; 22(12):904-911. DOI: 10.1089/dia.2020.0021. Epub 2020 Oct 14
- Practical Guide Rules for Connected Devices of a Health Information System General Health Information Systems Security Policy (PGSSI-S) - November 2013 - V1.0 [https://esante.gouv.fr/sites/default/files/media\\_entity/documents/Guide\\_Pratique\\_Dispositif\\_Connecte.pdf](https://esante.gouv.fr/sites/default/files/media_entity/documents/Guide_Pratique_Dispositif_Connecte.pdf)