New tools & research strategies in personalized health

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**Summary**

We will define the concept of personalized health, describe the underlying technologies, the technological, legal and ethical challenges that the field faces today, and how they are being met.

**Content**

In line with the Health 2030 Initiative (https://health2030.ch/), this course aims to be multidisciplinary, to tackle different aspects of personalized health. Under supervision of a PI to coach you, you will tackle study a specific problem, evaluating its basis and proposing solutions. The output will be a short report and an oral defense of your interdisciplinary project.

**Learning Prerequisites**

**Required courses**

None

**Learning Outcomes**

By the end of the course, the student must be able to:

- Distinguish the tenets of personalized health
- Discuss new technologies within the context of personalized health

**Transversal skills**

- Write a scientific or technical report.
- Make an oral presentation.
- Take feedback (critique) and respond in an appropriate manner.
- Assess progress against the plan, and adapt the plan as appropriate.
- Collect data.
- Use a work methodology appropriate to the task.
- Continue to work through difficulties or initial failure to find optimal solutions.
- Use both general and domain specific IT resources and tools

**Teaching methods**
Ex-cathedra lectures, discussions, coaching, preparation of a project, oral defense of the project.

Expected student activities
- Preparation of project
- Oral defense of project
- Active participation to discussions
- Work in small groups

Assessment methods
- Oral: quality of slides, clarity and content of presentation, ability to answer questions.
- Project: relevance to personalized health, explanation of relevant background, explanation of research strategy.
- Multidisciplinary approach.

Supervision
- Office hours: No
- Assistants: No
- Others: Coach and contact persons for project

Resources
- Bibliography
- No prerequisite

Notes/Handbook
- When possible, copies of the slides will be provided