EXPERIMENTAL MEDICINE (THESIS): DIGITAL HEALTH INNOVATION (M.SC.) (45 CREDITS)

Offered by: Medicine (Faculty of Medicine and Health Sciences)
Degree: Master of Science
Program credit weight: 45

Program Description

The M.Sc. in Experimental Medicine; Digital Health Innovation focuses on the basics of clinical epidemiology, medical artificial intelligence, clinical innovation, and applied data science, including the use and generation of digitized health and social data using specialized software. Fundamentals of current AI applications in medicine, methods to employ big data in clinical tool development, mathematical principals underpinning digital health and big data, and design thinking methodology in clinical innovation. High-volume streams of clinical and health-related data from clinical systems, wearables and social media.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Thesis Courses (24 credits)

Expand allContract all

Course	Title	Credits
EXMD 693	Master's Thesis Research 4.	12
EXMD 694	Master's Thesis Research 5.	12

Required Courses (9 credits)

Expand allContract all

Course	Title	Credits
EXMD 601	Real World Applications of Data Science and Informatics.	3
EXMD 634	Quantitative Research Methods.	3
EXSU 500	Artificial Intelligence in Medicine .	3

Complementary Course (6 credits)

3 credits from the following:

Expand allContract all

Course	Title	Credits
EPIB 600	Clinical Epidemiology.	3
EXMD 600	Principles of Clinical Research.	3

3 credits from the following:

Expand allContract all

Course	Title	Credits
EXMD 630	Developing Digital Innovations for Health Impact.	3
EXSU 620	Surgical Innovation 1.	3

Elective Courses (6 credits)

6 credits of courses at the 500 level or higher approved by the Director.