

Course: Trends in Biomedical Sciences

Teacher: shared among members of the PhD course

Length: 2.5 CFU (20 hours)

Objective:

This course is aimed to provide advanced knowledge on the cellular and molecular bases of pathological processes, on the more recent diagnostic procedures and therapeutic intervention modes using a multi-scale approach (from the molecule to the bed of the patient). The acquired knowledge (on metabolic processes, methodologies and analytical tools) will enable students to perform physiological and pathological studies, as well as to develop novel diagnostic and therapeutic approaches.

COURSE TOPICS

The course is intended to provide advanced theoretical knowledge in the continuously growing areas of biology applied to biomedical sciences and clinical research. In details:

- Advanced clinical pathology
- Advanced techniques in bioimaging
- Advanced treatments in neurodegenerative disorders
- Biomedical engineering and biomaterials
- Cell therapy
- Omics in biomedical science
- Molecular oncology
- Vascular diseases – diagnosis, therapeutic approaches and interventions