

Virtual reality in Tissue Engineering

Teacher: Mariana IONIȚĂ Class Location: VR class room

Course description:

- This course explores the intersection of Virtual Reality (VR) technology and Cell Stem, providing students with hands-on experience and theoretical knowledge in utilizing VR for studying and visualizing cellular and molecular processes.
- Students will learn the basics of VR technology, its applications in Tissue Engineering research, and develop VR-based projects to enhance their understanding of cellular mechanisms and stem cell biology.



Objectives:

- Understand the principles and applications of Virtual Reality technology in the context of Stem Cell.
- Gain knowledge about cellular and molecular processes relevant to stem cell biology.
- Develop practical skills in creating VR-based simulations and visualizations of cellular and molecular structures.
- Apply VR technology to explore stem cell niches, differentiation pathways, and regenerative medicine.

Topics:

- Introduction to Virtual Reality and Stem Cell
- Basics of VR Development
- Cellular and Molecular Processes

- VR Visualization of Cellular Structures
- Stem Cell Niches in Virtual Reality
- VR in Stem Cell Differentiation