## University Politehnica of Bucharest – Romania Reykjavik University - Iceland Faculty of Medical Engineering

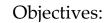


## Virtual reality in Tissue Engineering

## Teacher: Mariana IONIȚĂ Class Location: VR class room







• 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.

Course description:

- Students will learn the basics of VR technology, its applications in Tissue Engineering research, and develop VRbased projects to enhance their understanding of cellular mechanisms and stem cell biology.
- 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 VR Visualization of to Virtual Reality and **Cellular Structures** Stem Cell Stem Cell Niches in VR Virtual Reality Basics of VR in Stem Cell Development Cellular and Differentiation Molecular Processes Iceland N CORPUL EUROPEAN DE SOLIDARITATE anpcdefp 공  $\odot$ Erasmus+ Liechtenstein Norway grants The financial support provided by Education, Scholarships, Apprenticeships and Youth Entrepreneurship Programme in Romania, financed by the EEA Grants 2014-2021, Cooperation Projects in Higher Education Area, project Mixed Reality e-learning platform dedicated to

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