

**Organising  
institution**

Università degli Studi di Padova  
Dipartimento di Salute della donna e del bambino - SDB  
Prof. Perilongo Giorgio

**Visiting  
Professor**

Todd Chang  
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**Course Title  
and  
Description**

**Virtual Reality (VR) as an Innovative Training Strategy for Medical Simulation**

This series of hybrid workshops will target both medical students and physician faculty. The purpose of the workshop is to introduce an innovative teaching modality using Virtual Reality (VR) as a simulation training for providers at the University of Padova.

The first workshop (4-hours) will be a beginner's workshop. During this workshop, the science and industry specifics of the Virtual Reality (VR) industry will be introduced. We will first review current and anticipated best practices for VR and healthcare and will review theoretical foundations for simulation. Second, the group will discuss and develop content ideas that are appropriate for medical students interested in multiple medical specialties. Medical students will be able to experience simulated VR case scenarios and be guided on the key learning points. They will be able to discuss how VR can be best incorporated into their training curriculum. We will spend the final half of the workshop discussing programming needs, educational objectives, and implementation plans. At the end of the workshop, the participants will have a VR training template to collaborate with other University partners or a VR company.

The second workshop (4-hours) will be an intermediate level workshop. Participants who are familiar with simulation-based medical training will be invited to discuss best practices and experiences with working with VR developers, including challenges to collaboration. We will discuss real world examples of successful and failed education programs and determine any changes or suggestions for bringing educational products to the University of Padua. Finally, we will introduce the concept of VR-related education assessment and research. Principles of educational evaluation and how to determine how well medical students are learning will be introduced. We will review existing and ongoing research studies on the effectiveness of VR on medical students. At the end of the workshop, the participants will have an implementation plan for either curriculum integration, business plan, or a research summary.

Because Virtual Reality can also be done using virtual (distance) innovations, we will solicit online discussion before the projected dates of the in-person face-to-face workshops. Participants will be encouraged to present their work from the University of Padova to European conferences, such as Society of European Simulation applied to Medicine (SESAM) (<https://www.sesam.org/>) and Shift Medical EU (<https://shiftmedical.eu/>).

**Period**

07/05/2022 – 28/05/2022

**Course Level**

Single cycle Master degree course in Medicine and Surgery