

# 21st century technologies for Teaching and Learning

## Course 1: VR/AR/XR

This course is designed to sensitise for and introduce immersive learning in a practice-oriented way. It introduces the spectrum of Mixed Reality (XR) with its technologies Virtual and Augmented Reality (VR/AR), 360-degree video and 3D. The course enables participants to get to know the different learning technologies and to get hands on experiences. The training shows where and how learning processes can be improved in a meaningful way with XR. The course comprises 4 modules:

Module 1: Immersive Learning Basis  
Module 2: Didactics & Methods  
Module 3: Role of the trainer & Technologies  
Module 4: XR learning venues

- **Content, elements, format and duration can be customized to the respective needs**

### Learning Outcomes

On completion of the training, participants

- know basics about the 21st Century technologies – XR (VR, 360, 3D, AR)
- know the basics of „Immersive Learning“ and the usage of VR/AR in training situations
- are able to identify when and where VR/AR methodology can be integrated into the teaching environment
- are able to design didactical units in TVET using VR/AR
- know necessary appropriate equipment, software/programmes and physical learning environment
- enhance consulting competence when setting up TVET courses and program activities, incl. VR/AR

### Contents

- Introduction VR/AR in TVET
- How does VR/AR support to gain vocational action competence? Advantages and limitations
- New roles and competencies in digital environment
- Framework conditions, technical equipment, and requirements for a VR environment
- Implications for teaching and training - how do we want to teach and learn in future?
- VR/AR learning processes
- Technical characteristics
- Set up and design of selected VR/AR environments
- Technical characteristics and specifications of technical equipment

### Formats

- Face-to-Face format
- Virtual format implemented with synchronous and asynchronous (self-learning) sessions

### Language

- English, German,
- Upon request: other languages with interpreters

### Target groups

- International experts specialised in TVET training
- TVET teachers / In-company trainers in the context of GIZ projects
- Private sector stakeholders
- employees from GIZ who deal with TVET and sector projects

### Participation requirements

- Basic ICT skills

### Duration

- 40 hrs (27 hrs synchron, 13 hrs asynchron) in 1-6 weeks (recommended)

### Equipment

- Notebook/ PC Integrated or external microphone
- Mobile phone
- Stable internet connection
- Experience package (included in training fee)

### Certificate

The participants will receive a certificate of participation after successful completion of the course.

### Your contact

#### TVET Academy

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