

# TVET in the Water Sector

## Course 4: Technical basics for TVET trainings in sanitary, air conditioning and heating technology (HVAC and plumbing) in buildings – relevant concepts, new facts and trends

The technical progress in building technology is considerable. New, water- and energy-saving equipment with an expanded performance field, smart controls and networked applications must also be incorporated into education and training. To this end, proven teachers and trainers also need state of the art knowledge. In this course, you will be introduced to the essential technical developments of the past years in HVAC and how these will be covered within TVET training in the future.

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

### Learning outcomes

On completion of the training, participants

- Recognize the technical development in house-bound sanitary, AC- and heating technology
- Apply up to date subject knowhow as trainer.
- Use water sector specific learning methods in practice oriented training
- Create new exercises and practice oriented educational tasks

### Contents

- Development in the technical field of sanitary (water saving / hygiene / disinfection / greywater use)
- Energy efficiency (water / heat / cooling / energy infrastructure)
- WASH concepts, water harvesting
- Digitalization and distance service provision (central controls / smart meters/ IoT/ Augmented Reality AR)
- Parameters for quality and accuracy in measurement and analysis
- Technical standards and their relevance for up-to-date training
- Instruction techniques and teaching methods according to modern principles of adult training.

### Formats

- Virtual or face to face
- Lectures, experience exchange
- Use of Learning Management System (Moodle based)

The practical approach includes cooperative work and self-learning.

### Language

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

### Target groups

- TVET trainers and teachers
- Experts responsible for training in sanitary and HVAC and building services

### Participation requirements

- Experience in training in the sanitary and HVAC sector
- At least 5 years of professional experience

### Duration

- 30 hrs (recommended)
- Virtual 5 days
- Face to face 5 days (incl. field trip)

### Equipment

- Notebook / PC
- Stable internet connection
- Integrated or external microphone
- Webcam

### Certificate

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

### Your contact

#### TVET Academy

Academy for International Cooperation  
Deutsche Gesellschaft für Internationale  
Zusammenarbeit (GIZ) GmbH

E [tvvet-academy@giz.de](mailto:tvvet-academy@giz.de)

I [www.giz.de/tvet-academy](http://www.giz.de/tvet-academy)