



# Training Course: Accuracy (Trueness and Precision) of Measurement Methods and Results

21 - 25 July 2024 Dubai (UAE) Residence Inn by Marriott Sheikh Zayed Road, Dubai



## Training Course: Accuracy (Trueness and Precision) of Measurement Methods and Results

Training Course code: SC234753 From: 21 - 25 July 2024 Venue: Dubai (UAE) - Residence Inn by Marriott Sheikh Zayed Road, Dubai Training Course Fees: 4565 

Euro

### Introduction

ISO 5725 uses two terms, <code>[trueness[]</code> and <code>[precision[]]</code>, to describe the accuracy of a measurement method. <code>[Trueness[]]</code> refers to the closeness of agreement between the expectation of a measurement result and a true value. "Precision" refers to the closeness of agreement between independent measurement results obtained under stipulated conditions.

### **Course Objectives**

### Participants for this training course will learn:

- specifies basic methods for estimating the bias of a measurement method and the laboratory bias when a measurement method is applied
- provides a practical approach of a basic method for routine use in estimating the bias of measurement methods and laboratory bias
- provides a brief guidance to all personnel concerned with designing, performing or analyzing the results of the measurements for estimating bias.
- measurement methods which yield measurements on a continuous scale and give a single value as the
  measurement result, although the single value can be the outcome of a calculation from a set of
  observations.
- the measurement method has been standardized and all measurements are carried out according to that measurement method.

### **Target Audience**

This training is aimed for anyone looking to expand their knowledge of Accuracy trueness and precision of measurement methods and results.

### Course Outlines

### Day 1

### Introduction

- Scope
- Normative references
- · Terms and definitions
- Symbols

### Day 2

Determination of the bias of a standard measurement method by an interlaboratory experiment



- · Experimental design considerations
- Objective
- · Layout of the experiment
- Cross-references to ISO 5725-1 and ISO 5725-2
- The statistical model
- Required number of laboratories and measurements

### Day 3

### Requirements of the accepted reference value

- · Approaches to assigning the accepted reference value
- Materials used in the experiment
- Requirements of measurement uncertainty of the accepted reference value

### Carrying out the experiment

- · Evaluation of precision
- Check of precision
- · Estimation of the bias of the standard measurement method
- Example

### Day 4

### Determination of the laboratory bias of one laboratory using a standard measurement method

- · Experimental design considerations
- Objective
- · Layout of the experiment
- Cross-references to ISO 5725-1 and ISO 5725-
- The statistical model
- Number of measurement results
- Requirements of the accepted reference values

### Day 5

### Carrying out the experiment

- Check of the within-laboratory standard deviation
- Estimation of the laboratory bias

### Report to the panel and decisions to be taken by the panel

- Cross-reference to ISO 5725-2
- Report by the statistical expert
- · Decisions by the panel



### Registration form on the Training Course: Accuracy (Trueness and Precision) of Measurement Methods and Results

Training Course code: SC234753 From: 21 - 25 July 2024 Venue: Dubai (UAE) - Residence Inn by Marriott Sheikh Zayed Road, Dubai Training Course Fees: 4565 

Euro

Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

Delegate Information
Full Name (Mr / Ms / Dr / Eng):  Position: Telephone / Mobile: Personal E-Mail: Official E-Mail:
Company Information
Company Name: Address: City / Country:
Person Responsible for Training and Development
Full Name (Mr / Ms / Dr / Eng):  Position:  Telephone / Mobile:  Personal E-Mail:  Official E-Mail:
Payment Method
Please find enclosed a cheque made payable to Global Horizon  Please invoice me  Please invoice my company
Easy Ways To Register

Telephone: +201095004484 to provisionally reserve your place. Fax your completed registration form to: +20233379764

E-mail to us: info@gh4t.com or training@gh4t.com Complete & return the booking form with cheque to:Global Horizon 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt.