SİSTEM KALİBRASYON

Training Catalog

16 hands-on training programs in calibration and laboratory quality. Our training is planned on request, with content and dates that suit your needs.

HOW WE WORK

Training planned on request

We do not run a fixed training calendar: after your application we adapt the content to your team's needs and plan the training at a date and place that suits you.

1

Application

Tell us the programme you are interested in and the number of participants.

`Training plan and quote`

2

Assessment

Your team's needs and level are assessed and the content is tailored accordingly.

`Tailored training content`

3

Training

Theoretical and hands-on training is delivered by our expert instructors.

`Hands-on knowledge and training materials`

4

Exam

The knowledge and skills gained are assessed with an exam.

`Performance assessment`

5

Certificate

Participants who successfully complete the training receive a certificate.

`Training certificate`

PROGRAMS AT A GLANCE

16 training programs

NO	PROGRAM	DURATION
01	Dimensional Calibration	2 Days
02	Pressure Calibration	2 Days
03	Temperature Calibration	2 Days
04	Force Calibration	2 Days
05	Hardness Calibration	1 Day
06	Torque Calibration	1 Day
07	Optical Calibration	2 Days
08	Volume Calibration	1 Day
09	Density Calibration	1 Day
10	Mass - Scale	1 Day
11	Electrical Calibration	3 Days
12	Time - Frequency - Rotation	2 Days
13	TS EN ISO/IEC 17025 Fundamentals Training	2 Days
14	Internal Auditor Training	2 Days
15	Measurement Uncertainty Training	3 Days
16	Laboratory Setup	Project-based

SECTION 1

Calibration Training

01 — 2 DAYS

Dimensional Calibration

Theoretical and hands-on training on the calibration and verification of dimensional measuring instruments according to international standards.

- Caliper and micrometer calibration
- Dimensional measurement techniques
- Reference measurement methods
- Error analysis

02 — 2 DAYS

Pressure Calibration

Pressure measurement systems, dead-weight testers, and uncertainty calculations.

- Using dead-weight testers
- ISO 17025 standard
- Error and uncertainty analysis
- Reference pressure instruments

03 — 2 DAYS

Temperature Calibration

Operating principles of temperature sensors and their calibration using furnace/bath methods.

- RTD and thermocouple principles
- Calibration furnaces
- Temperature measurement techniques
- Data analysis methods

04 — 2 DAYS

Force Calibration

Force measurement principles and calibration methods for load cells.

- Load cell systems
- Force measurement principles
- Calibration methods
- Reference applications

05 — 1 DAY

Hardness Calibration

Training on calibration methods for hardness testers used in material testing, the use of standard blocks, and indirect verification methods.

- Rockwell, Brinell, and Vickers methods
- Hardness testing instruments
- Calibration standards
- Test procedures

06 — 1 DAY

Torque Calibration

Calibration of hand torque tools and torque meters in accordance with the TS EN ISO 6789 standard, and evaluation of measurement results.

- Torque wrench calibration
- Torque measuring instruments
- Calibration techniques
- Reference torque systems

SECTION 1

Calibration Training (continued)

07 — 2 DAYS

Optical Calibration

Training on calibration principles for light intensity, lux meters, and laser measurement systems, along with photometric measurement techniques.

- Laser systems
- Photodiodes and optical sensors
- Optical alignment
- Optical measurement techniques

08 — 1 DAY

Volume Calibration

Gravimetric calibration of glass and plastic volumetric vessels used in laboratories, and pure water density calculations.

- Volume measuring instruments
- Pipette and burette calibration
- Standard liquids
- Volumetric verification

09 — 1 DAY

Density Calibration

Calibration methods for liquid density meters (hydrometers) and digital density measuring instruments, along with temperature correction calculations.

- Using hydrometers
- Density measurement techniques
- Standard solutions
- Density calibration

10 — 1 DAY

Mass - Scale

On-site calibration of precision balances and the use of standard weight sets.

- Analytical balance calibration
- Reference weights
- Mass measurement techniques
- Calibration procedures

11 — 3 DAYS

Electrical Calibration

Calibration of electrical measuring instruments and measurement uncertainty calculations.

- Multimeter calibration
- Using oscilloscopes
- DC / AC measurements
- Electrical uncertainty analysis

12 — 2 DAYS

Time - Frequency - Rotation

Calibration procedures and measurement uncertainty analysis for time meters, tachometers, and frequency sources.

- Frequency meters
- Time measuring instruments
- Rotation measurement techniques
- Oscillator and signal analysis

SECTION 2

Quality Training

13 — 2 DAYS

TS EN ISO/IEC 17025 Fundamentals Training

A comprehensive training covering the fundamental principles of the general requirements standard for the competence of testing and calibration laboratories, along with its managerial and technical requirements.

- Management Requirements
- Technical Requirements
- Interpreting the Standard
- Accreditation Process

14 — 2 DAYS

Internal Auditor Training

Builds skills in planning, conducting, and reporting internal laboratory audits under the 17025 standard, guided by ISO 19011.

- Audit Planning
- Preparing Checklists
- Nonconformity Management
- Corrective Actions

15 — 3 DAYS

Measurement Uncertainty Training

Training on identifying sources of uncertainty in measurement results, building an uncertainty budget, and declaring results in accordance with international standards.

- Sources of Uncertainty
- Type A and Type B Calculation
- Expanding Coverage
- Writing Certificates

16 — PROJECT-BASED

Laboratory Setup

Hands-on training and consultancy across the whole setup process — from planning your laboratory layout and environmental conditions to selecting equipment and reference standards, building the traceability chain and preparing TS EN ISO/IEC 17025 documentation.

- Layout Plan and Environmental Conditions
- Equipment and Reference Standard Selection
- Traceability Chain
- 17025 Documentation and Accreditation Readiness

SİSTEM KALİBRASYON

Let’s plan your training together

Tell us which program you are interested in and how many participants; we will prepare a tailored training plan and quote.

ONLINE APPLICATION
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Sistem Kalibrasyon Müh. San. Tic. Ltd. Şti. · Program content and durations can be adapted to your needs.