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TSE TRAINING
PROGRAM

t r a i n i n g

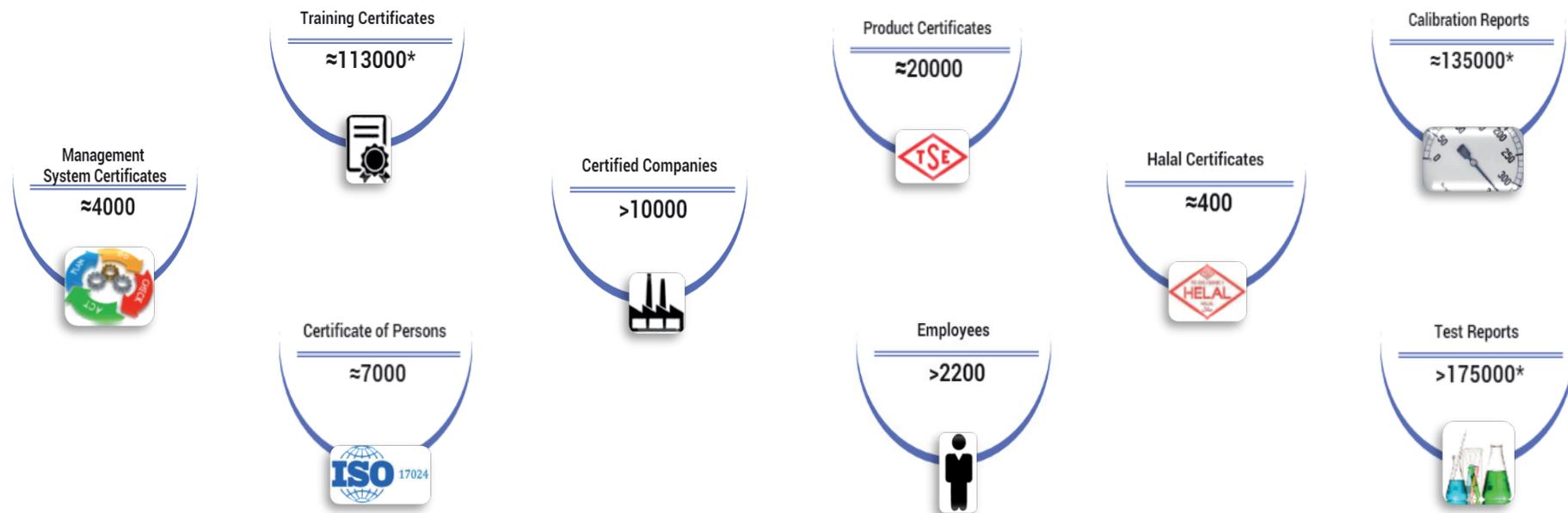
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* Last 5 years

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Training Group 1: Test and Calibration Services



1.1 Electrotechnical Testing Services

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Microohmmeter, Profile Projector, Tensile Test Machine, Test System for Vertical Flame Propagation for a Single Cable, Oven, Megaohmmeter, Bending Test Machine, Impact Test Machine, Heating Apparatus for Thermal Stability Test, Flexing Test Machine, Water Tank	TS EN 50525 Series Standarts	Cables All Type Tests (Electrical and Non-Electrical) Included	Graduation from Related Department of Universities	5	5	10	No	Yes
	IEC 605021:2014							
	TS IEC 60227 Series Standarts							
	TS IEC 60245 Series Standarts							
TS EN 60811 series	Tests of PVC Cables	Electrical Technician or Engineer	2	3	5	No	Yes	

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Accessibility and Safety Probes, Power Analyzer, Multimeters, Dataloggers, Leakage Current Tester, Hi-Pot Tester, IP Testers Durability Testers, Impact Hammer, Torqmers, Earth Continuity Tester, Calipers, Ball Pressure Tester, Glow Wire Tester	TS EN 60669-1	Switches All Tests	Graduation from Related Department of Universities	7	1	8	No	Yes
	TS IEC 60884-1	Socket/ Outlet All Tests		7	1	8	No	Yes
	TS EN 60335-1	Household Appliances Tests	Graduation from Related Department of Universities	5	3	8	No	No
	TS EN 60335-2-15	Appliances for Heating Liquids All Tests		3	2	5	No	No
	TS EN 60335-2-23	Appliances for Skin or Hair Care All Tests		3	2	5	No	No
	TS EN 60335-2-30	Room Heaters All Tests		3	2	5	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Accessibility and Safety Probes, Power Analyser, Multimeters, Dataloggers, Leakage Current Tester, Hi-Pot Tester, IP Testers Durability Testers, Impact Hammer, Torqmers, Earth Continuity Tester, Calipers, Ball Pressure Tester, Glow Wire Tester, Sphere for Measurement of Luminous Flux	TS EN 60598 series	Theoretical and Practical Training about Luminaires	Electrical Technician or Engineer	3	2	5	No	Yes
	TS EN 60968 TS EN 60969 TS EN 60560	Performance and Safety Test of Self Ballasted Lamps, LEDs	Electrical Technician or Engineer	3	2	5	No	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Absorbing Clamp, EMI Receiver, Glide Rail, 30-1000 Mhz Antenna, Line Impedance Stabilization Network, ESD Simulator, RF Signal Generator, Amplifier Burst/Surge Generator, Coupling/Decoupling Network For Conducted Immunity, Magnetic Field Generator	TS EN 55014-1 TS EN 55014-2	EMC Tests of Household Appliances	Electrical Technician or Engineer	2	2	4	No	Yes
SUMMARY	17 Int. Standards	10 Subject(s)	None	43	25	68	-	-

1.2 Energy Related Subjects

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Photovoltaic PV Module and Thermal Solar Collectors	TS EN 61215	Crystalline Silicon Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval	Electrical Electronics Engineer and Energy Systems Engineer	1	1	2	Yes	No
	TS EN 61646	Thin-Film Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval	Electrical Electronics Engineer and Energy Systems Engineer	1	1	2	Yes	No
	TS EN 61730-1	Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction	Electrical Electronics Engineer and Energy Systems Engineer	1	0	1	Yes	No
	TS EN 61730-2	Photovoltaic (PV) Module Safety Qualification - Part 2: Requirements for Testing	Electrical Electronics Engineer and Energy Systems Engineer	1	1	2	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Photovoltaic PV Module and Thermal Solar Collectors	TS EN 12975-1+A1	Thermal Solar Systems and Components - Solar Collectors - Part 1: General Requirements	Electrical Electronics Engineer and Energy Systems Engineer	1	1	2	Yes	No
	TS EN ISO 9806	Solar Energy - Solar Thermal Collectors - Test Methods	Electrical Electronics Engineer and Energy Systems Engineer	1	1	2	Yes	No
Gas Burning Appliances	TS EN 203-1 TS EN 30-1-1	Gas Heated Catering Equipment - Part 1: General Safety Rules Domestic Cooking Appliances Burning Gas-Part 1-1: Safety - General	Mechanical Engineer and Energy Systems Engineer	1	1	2	Yes	No
	TS 616-2-1 EN 30-2-1	Domestic Cooking Appliances Burning Gas-Part 2-1: Rational Use of Energy-General	Mechanical Engineer and Energy Systems Engineer	1	1	2	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Gas Burning Appliances	TS EN 484	Specification for Dedicated Liquefied Petroleum Gas Appliances Independent Hotplates including those incorporating a Grill for Outdoor Use	Mechanical Engineer and Energy Systems Engineer	1	1	2	Yes	No
	TS EN 498	Specification for Dedicated Liquefied Petroleum Gas Appliances-Barbecues for Outdoor Use	Mechanical Engineer and Energy Systems Engineer	1	1	2	Yes	No
Heat Pumps&Air Conditioners	EN 14511, EN 14825	Energy Efficiency of Heat Pumps and Air Conditioners	Mechanical / Electrical Engineer	1	2	3	Yes	No
Fan Coils	EN 1397	Capacity of Fan Coils	Mechanical / Electrical Engineer	1	1	2	Yes	No
Hot Water Boilers	EN 303 EN 15502	Efficiency, Capacity, Emission	Engineer	1	2	3	Yes	No
Combi Boilers	EN 15502	Efficiency, Capacity, Emission	Engineer	1	2	3	Yes	No
Radiators	EN 442	Capacity	Engineer	1	2	3	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
Thermostatic Valves	EN 215	Flow, Temperature, Characteristic Curves, Air Tunnel Tests	Engineer	1	2	3	Yes	No
SUMMARY	19 Int. Standards	16 Subject(s)	None	16	20	36	Yes	No

1.3 Food Laboratory Services

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Soxhlet	TS 2383	Acidity in Extracted Oil	Graduation from Related Department of Universities	1	1	2	No	Yes
Drying Oven	TS EN ISO 712	Moisture Content in Cereal and Cereal Products	Graduation from Related Department of Universities	1	2	3	No	Yes
	TS 1562 ISO 1573	Tea-Moisture Content Analysis	Graduation from Related Department of Universities					
Drying Oven- Soxhlet	TS ISO 9768	Tea-Determination of Water Extract	Graduation from Related Department of Universities					
Ash Oven	TS EN ISO 2171	Cereals, Pulses and By-Products - Determination of Ash Yield by Incineration	Graduation from Related Department of Universities	1	2	3	No	Yes
	TS 2131 ISO 928	Spices and Condiment- Determination of Total Ash	Graduation from Related Department of Universities					

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Ash Oven	TS 1564 ISO 1575	Tea-Ash Content Analysis	Graduation from Related Department of Universities	1	2	3	No	Yes
	TS 1565 ISO 1576	Tea-Determination of Water Soluble Ash and Water Insoluble Ash	Graduation from Related Department of Universities					
Manuel Titration	TS 4500, TS 3036 CL.5.3.7, TS 13360	Acidity in Wheat Flour, Invert Sugar in Honey, Acidity in Honey	Graduation from Related Department of Universities	1	1	2	No	Yes
HPLC- GC- TLC- AAS	Inhouse	General Requirements And Rules For Enstrumental Analysis Laboratory	Graduation from Related Department of Universities	1	0	1	No	Yes
Refractometer	TS 3036 CL. 5.3.11	Insoluble Material in Water Analysis in Honey	Graduation from Related Department of Universities	1	1	2	No	Yes
	TS 4890	Fruit and Vegetable Products- Determination of Soluble Solids Content- Refractometric Method						

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Spectro-photometry (UV-VIS)	TS 6178 ISO 7466	HMF Analysis	Graduation from Related Department of Universities	2	2	4	No	Yes
	Inhouse	Fruit and Vegetable Juices-Enzymatic Determination of Ethanol Content						
	TS EN 12631	Fruit and Vegetable Juices-Enzymatic Determination of D- And L-Lactic Acid (Lactate) Content- Nad Spectrometric Method						
	TS 13364	Diastase Activity in Honey						
HPLC	INHOUSE	General HPLC usage Training	Graduation from Related Department of Universities	5	5	10	No	Yes
	TS ISO 10727	HPLC-Cafein Analysis in Tea						
	TS 13356	HPLC-HMF Analysis in Honey						
	TS 13359	HPLC- Saccharose Analysis in Honey						
	Inhouse	HPLC- Potasium Sorbate And Sodium Benzoat Analysis in Food as Preservative						

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
HPLC	TS EN ISO 16050 TS EN ISO 14675	HPLC- Aflatoxin Analysis in Food And Milk Products	Graduation from Related Department of Universities	5	5	10	No	Yes
Manuel Titration	TS 1125 ISO 750	Fruit and Vegetable Products- Determination of Titratable Acidity	Graduation from Related Department of Universities	1	1	2	No	Yes
	TS 774	Acidity in Salt Solution of Olive						
	TS 774	Salt Content in Solution and Grain						
Microbiology Laboratory	TS 6235 EN ISO 6887-1, TS EN ISO 7218	General Requirements and Rules for Microbiological Analysis Laboratory	Graduation from Related Department of Universities	3	18	21	No	Yes
	TS 7703 EN ISO 4833, TS EN ISO 7218	Preparation Sample and Agar Training						

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Microbiology Laboratory	TS 6063 ISO 7251,TS 8125 ISO 6391,TS EN ISO 9308-1	<i>Escherichia Coli</i> and Coliform Bacteria Count and Detection, <i>Escherichia coli O157</i> Detection, Coagulase- Pozitive- <i>Staphylococcus</i> Enumeration, <i>Salmonella</i> spp.	Graduation from Related Department of Universities	3	18	21	No	Yes
	TS ISO 11866-1 TS EN ISO 16654	<i>Clostridium perfringens</i> Horizontal Method for Colony-Count Technique-						
	TS 6582-2 EN ISO 6888-2	Enumeration of Yeasts and Moulds						
	TS EN ISO 6579, TS 8907 ISO 6785 TS EN ISO 7937	Horizontal Method for Colony-Count Technique						

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Microbiology Laboratory	TS ISO 21527-1:2008, TS ISO 21527-2, TS ISO 6611	<i>Listeria monocytogenes</i> Detection	Graduation from Related Department of Universities	3	18	21	No	Yes
	TS ISO 10560, TS EN ISO 11290-1	<i>Pseudomonas aeruginosa</i> Detection and Enumarition,						
	TS EN ISO 16266, TS EN ISO 13720	Rope Factor Spore Enumariton						
	TS 5000							
Microbiology Laboratory	TS 2664	Aerobic and Anaerobic Mezofilic or Thermofilic Microorganisms in Canned Food	Graduation from Related Department of Universities	2	5	7	No	Yes
Microbiology Laboratory	TS 11885, TS 9676, TS EN ISO 11609:2010, TS EN ISO 22718, TS EN ISO 21150	Microbiological Test Methods of Cosmetics	Graduation from Related Department of Universities	2	5	7	No	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Microbiology Laboratory	EN ISO 22717:2009, TS EN ISO 7937, ISO 18416, ISO 21149	Microbiological Test Methods of Cosmetics	Graduation from Related Department of Universities	2	5	7	No	Yes
Microbiology Laboratory	TS EN 1500, TS EN 1276, TS 6775	Chemical Disinfectants and Antiseptics- Antibacterial Test Methods	Graduation from Related Department of Universities	1	5	6	No	Yes
Elisa Test Equipment	-	Equipment Training- Minividas	Graduation from Related Department of Universities	1	1	2	No	Yes
RT PCR	In House Method	GMO Screening Testing (35 S, NOS, FMV)	Meloculer Biologist Biologist Food Engineer Bioengineer	1	1	2	No	No
		Meat Type Identification (Beef, Pork, Chicken, Duck)	Meloculer Biologist Biologist Food Engineer Bioengineer					

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Spectrophotometry (UV-VIS)	TS 13364	Honey Diastase Activity	Graduation from Related Department of Universities	1	1	2	No	No
	TS 13357	Honey Proline Content						
SUMMARY	66 Int. Standards	13 Subject(s)	None	25	51	76	-	-

1.4. Chemistry Laboratory Services

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Glassware Laboratory Equipments, Magnetic Stirrer, Heater, Oven	TS 518, TS 54, TS 829, TS 5682, TS 9676, TS 12039, TS 11885, TS 11636, TS 5155, TS 13372, TS 13411	Cleaning Products Tests	Chemist or Chemical Engineer	5	5	10	No	No
ICP-MS	-	ICP-MS (Inductively Coupled Plasma Mass Spectrometry)	Chemist or Chemical Engineer	1	1	2	No	No
GC-MS	-	GC-MS (Gas Chromatography-Mass Spectrometry)	Chemist or Chemical Engineer	1	1	2	No	No
ICP-OES	-	ICP-OES (Inductively Coupled Plasma-Optical Emission Spectrometry)	Chemist or Chemical Engineer	1	1	2	No	No
HPLC	-	HPLC (High-Performance Liquid Chromatography)	Chemist or Chemical Engineer	1	1	2	No	No
XRF	-	XRF (X-Ray Fluorescence)	Chemist or Chemical Engineer	1	1	2	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
UV-VIS	-	Ultraviolet-Visible Spectrophotometry (UV-VIS)	Chemist or Chemical Engineer	1	1	2	No	No
TX/AOX/EOX	-	TX/AOX/EOX/POX Halogen Analyzer	Chemist or Chemical Engineer	1	1	2	No	No
pH Meter, Sieve Analyser, Oven, Furnace	General Training	Determination of pH, Moisture, Ash, Density, Corrosion Test, Sieve Analysis	Chemist or Chemical Engineer	1	2	3	No	No
-	ISO 4427 TS EN 12201-2	Plastics piping fittings (Water)	Chemist or Chemical Engineer	1	4	5	No	No
-	TS EN ISO 15874-1, TS EN ISO 15874-2, TS EN ISO 15874-3, TS EN ISO 15874-5	Plastic Piping Systems for Hot and Cold Water Installations – Polypropylene (PP)	Chemist or Chemical Engineer	1	4	5	No	No
-	TS ISO 37 TS EN ISO 868	Rubber, Vulcanized or Thermoplastic - Determination of Tensile Stress-Strain Properties Plastics and Ebonite - Determination of Indentation Hardness by means of a Durometer (Shore Hardness)	Chemist or Chemical Engineer	1	0	1	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	TS EN 1329	Plastics Piping Systems for Soil and Waste Discharge (Low and High Temperature) within the Building Structure - Unplasticized Poly (Vinyl Chloride) (PVC-U) - Part 1: Specifications for Pipes, Fittings and the System	Chemist or Chemical Engineer	1	4	5	No	No
-	TS 39	Paints-Organic Solvent Based-Top Coat	Chemist or Chemical Engineer	1	1	2	No	No
-	TS 5808	Paints and Varnishes – Water based Coating Materials and Coating Systems for Interior Walls and Ceilings	Chemist or Chemical Engineer	1	1	2	No	No
-	TS 7847	Paints and Plasters – Coating Materials and Coating Systems for Exterior Masonry and Concrete	Chemist or Chemical Engineer	1	1	2	No	No
-	TS 12330	Lubricating Oils - Motor Oils - Used in Gasoline and Diesel Engines	Chemist or Chemical Engineer	1	4	5	No	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	TS ISO 11158	Lubricating Oils, Industrial Oils and related Products (Class L) - Family H (Hydraulic systems) - Specifications for Categories HH, HL, HM, HV and HG	Chemist or Chemical Engineer	1	4	5	No	Yes
-	TS 11485	Lubricating Oils, Industrial Lubricants and related Products (Class L) - Group G: Gear Oils - Used in Motor Vehicles	Chemist or Chemical Engineer	1	4	5	No	Yes
-	TS 13369	Lubricating Oils, Industrial Oils and related Products (Class L) - Base Oils	Chemist or Chemical Engineer	1	4	5	No	Yes
-	TS ISO 12925-1	Lubricants, Industrial Oils and related Products (Class L) - Family C (Gears) - Part 1: Specifications for Lubricants for enclosed Gear Systems	Chemist or Chemical Engineer	1	4	5	No	Yes
-	76/116/EC	Chemical Fertilizer	Chemist or Chemical Engineer	2	-	2	No	No
-	EN ISO 9994	Lighters - Safety Specification	Chemist or Chemical Engineer	2	-	2	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	Cement	EN 196-2 (Determination of Loss on Ignition, Determination of Chloride, Determination of Residue Insoluble in HCl and Na ₂ CO ₃ , Gravimetric Determination of Sulphate, Pozzolanicity Test)	Chemist or Chemical Engineer	3	-	3	No	No
GC-MS	Phtalates	In House Method (Modified from EN 14372, EN 15777)	Chemist or Chemical Engineer	1	1	2	No	No
GC-MS	Azo dyes	In House Method (Modified from EN 14362-1)	Chemist or Chemical Engineer	1	1	2	No	No
Toys Aparatus	Toys	EN 71-1	Graduation from any Related Department of Universities	1	1	2	No	No
Toys Aparatus	Toys	EN 71-2	Graduation from any Related Department of Universities	1/2	1/2	1	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Incubator+ICP OES	Toys	EN 71-3 (Safety of Toys Part 3: Migration of Some Elements (Al, Sb, As, Ba, B, Cd, Co, Cu, Pb, Mn, Hg, Ni, Se, Sr, Sn, Toplam Cr, Zn, except for Cr VI, organic Tin)	Graduation from any Related Department of Universities	1	1	2	No	No
-	Ceramic Ware, Glass-Ceramic Ware and Glass Dinnerware	Ceramic Ware, Glass-Ceramic Ware and Glass Dinnerware in contact with Food-Release of Lead and Cadmium ISO 6486-2	Graduation from any Related Department of Universities	1	1	2	No	No
-	Silicate Surfaces	Materials and Articles in Contact with Foodstuffs-Silicate Surfaces-Part 1: Determination of the Release of Lead and Cadmium from Ceramic Ware EN 1388-1	Graduation from any Related Department of Universities	1	1	2	No	No
-	Ceramic Tiles	Determination of Lead and Cadmium given off by Glazed Tiles EN ISO 10545-15	Graduation from any Related Department of Universities	1	1	2	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	TS ISO 37 TS EN ISO 868	Rubber, Vulcanized or Thermoplastic - Determination of Tensile Stress-Strain Properties Plastics and Ebonite - Determination of Indentation Hardness by means of a Durometer (Shore Hardness)	-	2	3	5	No (Yes/No)	No (Yes / No)
	Personal Protective Equipment - Test Methods for Footwear	EN ISO 20344:2011	Chemist or Chemical Engineer	5	10	15	No	No
SUMMARY	53 Int. Standards	16 Subject(s)	None	46.5	69.5	116	-	-

1.5. Machinery Laboratory Services

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Test Devices	TS EN 817	Sanitary Tapware-Mechanical Mixing Valves (PN10)- General Technical Specifications	-	10	10	20	No (Yes / No)	No (Yes / No)
Test Devices	TS EN 200	Sanitary Tapware - Single Taps and Combination Taps for Water Supply Systems of Type 1 and Type 2 - General Technical Specification	-	10	10	20	No (Yes / No)	No (Yes / No)
Test Devices	TS EN 3822-2	Acoustics-Laboratory Tests on Noise Emission from Appliances and Equipment used in Water Supply Installations - Part 2: Mounting and Operating Conditions for Draw off Taps and Mixing Valves	-	5	5	10	No (Yes / No)	No (Yes / No)

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Test Devices	TS EN 198	Sanitary Appliances - Baths made from Crosslinked Cast Acrylic Sheets - Requirements and Test Methods	-	5	5	10	No (Yes / No)	No (Yes / No)
Test Devices	TS EN 249	Sanitary Appliances – Shower Trays made from Crosslinked Cast Acrylic Sheets – Requirements and Test Methods	-	5	5	10	No (Yes / No)	No (Yes / No)
Test Devices	TS EN 14800	Corrugated Safety Metal Hose Assemblies for the Connection of Domestic Appliance using Gaseous Fuels	-	5	5	10	No (Yes / No)	No (Yes / No)
Test Devices	TS EN ISO 6892-1	Metallic Materials – Tensile Testing – Method of Test at Room Temperature	-	3	2	5	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Test Devices	TS EN ISO 148-1	Metallic Materials – Charpy Pendulum Impact Test	-	3	2	5	No	No
Test Devices	TS EN ISO 6506-1 TS EN ISO 6507-1 TS EN ISO 6508-1	Metallic Materials – Brinell Hardness Test Metallic Materials – Vickers Hardness Test Metallic Materials – Rockwell Hardness Test	-	3	2	5	No	No
Test Devices		Metallic Materials – Chemical Analysis by OES	-	3	2	5	No	No
SUMMARY	Int. Standard	6 Subject(s)	None	52	48	100	No	No

1.6. Textile Laboratory Services

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Rubbing Tester-Spectro photometer	TS EN ISO 105-X12 :2006-04	Textiles - Tests for Colour Fastness - Part X12: Colour Fastness to Rubbing	Textile, Chemistry	0,5	0,5	1	No	Yes
Xenon Tester/Grey Scale	TS EN ISO 105-B02	Textiles - Tests for Colour Fastness - Part B02: Colour Fastness to Artificial Light: Xenon Arc Fading Lamp Test	Textile, Chemistry	0,5	1,5	2	No	Yes
Xenon Tester/Grey Scale	TS 4460 EN ISO 105-B04	Textiles- Tests for Colour Fastness- Part B04: Colour Fastness to Artificial Weathering: Xenon Arc Fading Lamp Test	Textile, Chemistry	1	1	2	No	Yes
Tensile Tester	TS EN ISO 13934-1	Tensile Properties of Fabrics -Determination of Maximum Force and Elongation at Maximum Force using the Strip Method	Textile, Chemistry	1	1	2	No	Yes
Tensile Tester	TS EN ISO 13937-2	Determination of Tear Force of Trouser-Shaped Test Specimens (Single tear method)	Textile, Chemistry	1	1	2	No	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Wascator/ Grey Scale	TS EN ISO 105-C10	Textiles – Tests for Colour Fastness – Part C10: Colour Fastness to Washing with Soap or Soap and Soda	Textile, Chemistry	0,5	1,5	2	No	Yes
Wascator/ Grey Scale	TS EN ISO 105-C06	Textiles - Tests for Colour Fastness - Part C06: Colour Fastness to Domestic and Commercial Laundering	Textile, Chemistry	0,5	1,5	2	No	Yes
Solution Bath/ Grey Scale	TS EN ISO 105-E02	Textiles - Test for Colour Fastness - Part E02: Colour Fastness to Sea Water	Textile, Chemistry	0,5	1,5	2	No	Yes
Solution Bath/ Grey Scale	TS EN ISO 105-E04	Textiles - Test for Colour Fastness - Part E04: Colour Fastness to perspiration	Textile, Chemistry	0,5	1,5	2	No	Yes
SUMMARY	9 Int. Standards	9 Subject(s)	None	6	11	17	No	Yes

1.7 Construction Materials Laboratory Services

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Wood-Based Panels	TS EN 717-1 TS EN 717-2	Formaldehyde Emission Test Methods From Wood-Based Panels	-	1	2	3	No	Yes
MDF	TS EN 622-5	MDF- Wood-Based Panels All Test	-	1	4	5	No	Yes
Chipboard	TS EN 312	Chipboard- Wood Based Panels All Test	-	1	4	5	No	Yes
Concrete	TS EN 12390-3	Compressive Strength of Hardened Concrete	-	0,5	0,5	1	No	Yes
Ceramic Binders	TS EN 12004	Product Standard of Ceramic Binders	-	1	4	5	No	Yes
Laminate Floor Coverings	TS EN 13329+A1	Product Standard of Laminate Floor Coverings	-	2	3	5	No	Yes
Furniture Durability Test Devices	TS EN 14749, TS EN 1116, TS EN 12520, TS EN 1725, TS EN 1334, TS EN 747-1-2	Practical Training for Furniture Standards and Test Techniques	-					

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Furniture Durability Test Devices	TS EN 716-1-2, TS EN 1130-1-2, TS EN 1957, TS EN 527-1-2-3, TS EN 14073-2, TS EN 14073-3, TS EN 14074, TS 5337-1 EN 1335-1, TS EN 1335-2-3, TS EN 1023-1-2-3, TS EN 12727, TS EN 15372, TS EN 581-1-2-3, TS EN 16139, TS EN 16121, TS EN 16122, TS EN 1729-1-2, TS EN 14434	Practical Training for Furniture Standards and Test Techniques	-	5	25	30	No (Yes / No)	Yes (Yes / No)
Test Devices	TS EN 12004	Adhesives for Tiles - Standards and Test Techniques	Engineers and Technicians Who Have Basic Knowledge on Construction Chemicals	3	7	10	No (Yes / No)	Yes (Yes / No)

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Test Devices	TS EN 13888	Grout for Tiles – Standards and Test Techniques	Engineers and Technicians Who Have Basic Knowledge on Construction Chemicals	2	5	7	No (Yes / No)	Yes (Yes / No)
Test Devices	TS EN 13279-1	Gypsum Binders and Gypsum Plasters - Standards and Test Techniques	Engineers and Technicians Who Have Basic Knowledge on Construction Chemicals	2	5	7	No (Yes / No)	Yes (Yes / No)
Test Devices	TS 706 EN 12620+A1 TS EN 13043, TS EN 13242+A1, TS 2717, EN 13139, TS 7043, EN 13450 TS 1114 EN 13055-1	Practical Training for Aggregates Standards and Test Techniques	Engineers and Technicians Who Have Basic Knowledge on Construction Chemicals	3	12	15	No (Yes / No)	Yes (Yes / No)
Test Devices	TS EN 1469, TS EN 12057, TS EN 12058, TS EN 1341, TS EN 1342, TS EN 1343	Practical Training for Natural Stones Standards and Test Techniques	-	2	8	10	No (Yes / No)	Yes (Yes / No)

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Test Devices	TS EN 206 TS 2824 EN 1338 TS 436 EN 1340	Practical Training for Concrete and Concrete Products Standards and Test Technique	-	2	6	8	No (Yes / No)	Yes (Yes / No)
Test Devices	TS 213-1 EN 13748-1 TS 213-2 EN 13748-2	Practical Training for Terrazo Tiles Products Standards and Test Techniques	-	2	4	6	No (Yes / No)	Yes (Yes / No)
Test Devices	TS EN 197-1	Practical Training for Cement Products Standards and Test Techniques	-	2	3	5	No (Yes / No)	Yes (Yes / No)
Test Devices	EN 771-1	Clay Masonry Units	-	2	5	7	No (Yes / No)	Yes (Yes / No)
Test Devices	EN 771-3	Aggregate Concrete Masonry Units (Dense and Lightweight Aggregates)	-	2	5	7	No (Yes / No)	Yes (Yes / No)
Test Devices	EN 771-4	Autoclaved Aerated Concrete Masonry Units	-	2	5	7	No (Yes / No)	Yes (Yes / No)
Test Devices	EN 1304	Clay Roofing Tiles and Fittings	-	2	5	7	No (Yes / No)	Yes (Yes / No)

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Guarded Hot Plate	EN 12667	Determination of Thermal Resistance by Means of Guarded Hot Plate	-	2	5	7	No (Yes / No)	Yes (Yes / No)
Climatic Chamber, Tensile Testers, Balances, UV/VIS/N IR Spektrophotometer, K-type thermo-couples and other special test devices (EN 12600, EN 356)	EN 1279-5, EN 673, EN 410, EN 12600, EN 356, EN 12150-1	Theoretical Explanation of Glass in Building Tests, Performing Tests, Explanation and Usage of Test Devices, Observation of Results and Teaching of Practical Information (EN 1279-5, EN 673, EN 410, EN 12600, EN 356, EN 12150-1)	-	5	2	7	No (Yes / No)	No (Yes / No)

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
<p>Non-Combustibility Test EN ISO 1182</p> <p>Gross Calorific Potential Test EN ISO 1716</p> <p>Single Burning Item Test EN 13823</p> <p>Ignitability Test EN ISO 11925-2</p> <p>Radiant Panel Test EN ISO 9239-1</p>	<p>EN 13501-1</p> <p>EN 9239-1</p> <p>EN 11925-2</p> <p>EN 13823</p> <p>ISO 1716</p> <p>EN 1182</p> <p>EN 13820</p>	<p>Venue: This is an in-situ training will be held in TSE Fire and Acoustics Laboratory Tuzla/Istanbul.</p> <p>In this course, it is aimed to give information about Euroclass system of reaction to fire performance of building products and how to conduct these classification tests and evaluate test results.</p> <p>The number of participants is limited to 10. Course will be in English. Daily agenda will be sent to participants prior to the course.</p>	<p>Persons dealing with fire safety, reaction to fire and construction products testing. Experts working especially in field of civil defence and architects/civil engineers may have some more interest on these issues.</p>	2	3	5	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
3 m x 4 m Fire Resistance Furnace Or 1,5 m x1,5 m Indicative Furnace	EN 13501-2 EN 1363-1 and -2 EN 1364-1	<p>Venue: This is an in-situ training will be held in TSE Fire and Acoustics Laboratory Tuzla/Istanbul and TSE Fire Laboratory Kayseri.</p> <p>In this course, it is aimed to give information about Euroclass system of fire resistance performance of building products and conducting full scale fire resistance tests on Non-loadbearing wall. and evaluate test results.</p> <p>The number of participants is limited to 10.</p> <p>Course will be in English. Daily agenda will be sent to participants prior to the course.</p>	Persons dealing with fire safety, fire resistance and construction products testing. Experts working especially in field of civil defence and architects/civil engineer may have some more interest on these issues.	2	2	4	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
3 m x 3 m Fire Resistance Furnace	EN 13501-2 EN 1363-1 and -2 EN 1634-1 EN 1191 (or EN 12605) EN 16034	Venue: This is an in-situ training will be held in TSE Fire Laboratory Kayseri. In this course, it is aimed to give information about Euroclass system of fire resistance performance of building products and conducting full scale fire resistance tests on Fire Resistant Doors, product standard and certification and evaluate test results. The number of participants is limited to 10. Course will be in English. Daily agenda will be sent to participants prior to the course.	Persons dealing with fire safety, fire resistance and construction products testing. Experts working especially in field of civil defence and architects/civil engineer may have some more interest on these issues.	2	2	4	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Impact and Airborn Sound Insulation Rooms	ISO 10140-2 and -3 ISO 717-1 and -2	<p>Venue: This is an in-situ training will be held in TSE Fire and Acoustics Laboratory Tuzla/Istanbul and TSE Fire Laboratory Kayseri.</p> <p>In this course, it is aimed to give information about airborn and impact sound insulation performance of building products and conducting an airborn sound insulation test on a autocalced concrete wall and evaluate test results.</p> <p>The number of participants is limited to 10.</p> <p>Course will be in English. Daily agenda will be sent to participants prior to the course.</p>	<p>Persons deailing with sound insulation and construction products testing.</p> <p>Experts working especially in field of civil defence, Noise measurement and architects/civil engineers may have some more interest on these issues.</p>	2	2	4	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
SUMMARY	76 Int. Standards	24 Subject(s)	None	55.5	151.5	207	-	-

1.8 Packaging and Other Laboratory Services

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Tensile Strength Device Whiteness Device Thickness Device Weighing Machine Surface Smoothness Machine Stiffness Machine IR Spectrofotometer COBB Apparatus	TS 4544-School NoteBooks	Determining physical properties of Notebooks like grammage, thickness, COBB, whiteness, stiffness, tensile strength, smoothness.	-	1	2	3	No (Yes / No)	Yes (Yes / No)
Oven Weighing Machine GC-FID Extraction System Water Bath Rotary Evaporator Glass Materials	TS EN 1186-Materials and Articles in Contact with Foodstuffs - Plastics - Part 1: Guide to the Selection of Conditions and Test Methods for overall migration	Determining overall migration of plastics with different food simulants.	-	2	3	5	No (Yes / No)	No (Yes / No)

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	Project Preparation and Management	Preparation, resource and time management of project-based activities such as method development or kit development and similar conformity assessment R&D projects	Personal computer for each trainee	2	1	3	No (Yes / No)	No (Yes / No)
SUMMARY	2 Int. Standards	3 Subject(s)	None	5	6	11	-	-

1.9 Calibration Laboratory Services								
Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	-	General Metrology and Calibration Training	-	1	0	1	No	No
Non-Automatic Weighing Instruments, Scales	EURAMET cg-18	Non-Automatic Weighing Instruments Calibration Training	-	0,5	0,5	1	No	Yes
E,F,M Class Masses	OIML R 111-1	Mass Calibration Training	-	0,5	0,5	1	No	Yes
Tension, Compression Testing Machines	EN ISO 7500-1	Static Material Testing Machines Calibration Training	-	1	1	2	No	Yes
Rockwell, Brinell, Vickers Hardness Testing Machines	EN ISO 6506-2 EN ISO 6507-2 EN ISO 6508-2	Hardness Testing Machines Calibration Training	-	1	1	2	No	Yes
Force Transducers, Loadcells	EN ISO 376	Force-Proving Instruments Calibration Training	-	1	1	2	No	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Rockwell, Brinell, Vickers Hardness Reference Blocks	EN ISO 6506-3 EN ISO 6507-3 EN ISO 6508-3	Hardness Reference Blocks Calibration Training	-	1	1	2	No	Yes
Pressure Calibrators, Pressure Gauges, Manometers etc.	Euramet Cg-17 Guidelines on the Calibration of Electromechanical Manometers	Pressure Calibration Training	-	1	1	2	No	Yes
Hygrometers, Temperature and Humidity Meters	Basic Principles of Humidity Measurements	Basic Principles of Humidity Calibration and Measurements	-	1	1	2	No	Yes
Digital Multimeters, Oscilloscopes, Resistances, Multifunction Electrical Calibrators	EURAMET cg-15	Electrical Calibration Training	-	1	1	2	No	Yes
SUMMARY	10 Int. Standards	10 Subject(s)	None	9	8	17	No	Yes

Training Group 2: Standardization Activities



Apparatus	Related Standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	-	National, Regional and International Standardization Activities	-	1	-	-	-	-
SUMMARY	-	1 Subject	None	1	-	-	-	-

Training Group 3: Information Technologies Test and Certification Services



Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
-	TS 13298 (National Standard)	Electronic Records Management System	-	2	0	2	Yes	No
-	TS ISO/IEC 25051	Requirements for Quality of Ready to Use Software Product (RUSP) and Instructions for Testing	-	1	0	1	Yes	No
-	TS ISO/IEC 15408	IT-Security Techniques-Evaluation Criteria for IT Security-(Common Criteria)	-	2	0	2	Yes	No
-	TS ISO/IEC 19790-24759	IT-Security Techniques-Security Requirements for Cryptographic Modules and Test Requirements for Cryptographic Modules	-	1	0	1	No	No
-	TS 13638	Penetration Test Certification - Ethical Hacking (Introduction)	-	1	0	1	No	No
-	TS 13638	Penetration Test Expert Certification - Ethical Hacking (Advanced)	-	5	5	10	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
-	-	Reverse Engineering	-	2	0	2	Yes	No
-	TS ISO/IEC 15504 SPICE	Software Life Cycle, Software Support and Software Management Organizational Maturity Standard	Basic Software Lifecycle Knowledge	3	0	3	No	No
-	TSEK 505	First Level Security Certification	-	1	0	1	Yes	No
-	TS ISO/IEC 27001 ISMS	IT Security Management System	-	5	5	10	Yes	Yes
-	TSEK 492	PARDUS Migration Specialist Certification Program	Operating Systems Knowledge	2	0	2	No	No
SUMMARY	11 Standards	11 Subjects	Training prerequisites for some educations are mention up.	25	10	25	Mentioned up for some educations	Mentioned up for some educations

Training Group 4: Conformity Assessment



Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	ISO/IEC 17020	Conformity Assessment - Requirements for the Operation of Various Types of Bodies Performing Inspection	-	3	-	3	No	No
-	ISO/IEC 17021-1	Conformity Assessment - Requirements for Bodies Providing Audit and Certification of Management Systems - Part 1: Requirements	-	3	-	3	No	No
-	ISO/IEC 17024	Conformity Assessment - General Requirements for Bodies Operating Certification of Persons	-	3	-	3	No	No
-	ISO/IEC 17025	General Requirements for the Competence of Testing and Calibration Laboratories (For Calibration Laboratories)	-	3	included	3	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	ISO/IEC 17025	General Requirements for the Competence of Testing and Calibration Laboratories (for Testing Laboratories)	-	5	included	5	No	No
-	ISO/IEC 17025	General Requirements for Food Laboratory based on EN ISO/IEC 17025	-	1	1	2	No	No
-		Measurement Uncertainty (For Calibration Laboratories)	-	2	-	2	No	No
-	ISO/IEC 17043	Conformity Assessment - General Requirements for Proficiency Testing	-	3	-	3	No	No
-	ISO/IEC 17065	Conformity Assessment - Requirements for Bodies Certifying Products, Processes and Services	-	3	-	3	Yes	No
-	Related Int. Standards	EU Directives	-	1	5	6	Yes	No
SUMMARY	8 Standards	10 Subjects	-	27	6	33		

Training Group 5: Inspection and Surveillance Services



Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Service Place Competence Certification Activities	-	Procedure and Principles of Service Place Competence Certification- Certification Directive	-	1	-	1	No	No
Fundamental standards of Service Place Competence Certification	TS 12361- Competent Services- General Rules TS 13346- Work Places- General Rules	Basic Principles of Certification Companies with Competent service Status Basic Principles of Certification Work Places without Competent Service Status	-	1	-	1	No	No
Certification of catering companies	TS 8985- Work Places- Catering- General Rules	General Rules for Catering Companies	Food/Hygiene based Graduated Personnel Preferably	1	1	2	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
System of Customer Oriented Company/Customer Oriented Brand Certification	Introduction of Customer Oriented Company/Customer Oriented Brand Certification Model Customer Oriented Company/Customer Oriented Brand Certification Procedure	Procedure and Principles of Customer Oriented Company/Customer Oriented Brand	Procedure and Principles of Service Place Competence Certification-Certification Directive	1	-	1	Yes	No
-	International Surveillance Department Procedures	Preshipment Inspection	Preferably Graduation from a Technical Department	1	1	2	No	No
-	EN 81-80 EN 81-20 EN 81-50	Lift Inspection	Machine/Electricity Engineer	4	1	5	Yes	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	ISO 14064-1	Greenhouse gases - Part 1: Specification with Guidance at the Organization level for Quantification and Reporting of Greenhouse Gas Emissions and Removals	Graduation from a Technical Department	2,5	0	2,5	Yes	No
-	ISO 14064-3	Greenhouse Gases - Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions	Graduation from a Technical Department	1,5	0	1,5	Yes	No
Welding Weld Gauge Instrument	EN 9606-1 EN 9606-2	Qualification Testing of Welders - Fusion Welding - Part 1: Steels Part 2: Aluminium and Aluminium Alloys	Graduation from a Technical Department Preferably Welding Knowledge Required	2	0	2	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
Digital Multimeter Weld Gauge Instrument	EN 15614-1	Specification and Qualification of w Welding Procedures for Metallic Materials - Welding Procedure Test - Part 1: Arc and Gas Welding of Steels and Arc Welding of Nickel and Nickel Alloys	Graduation from a Technical Department Preferably Welding Knowledge Required	2	0	2	No	No
Electrical Installation Tester	Regulation by Republic of Turkey Ministry of Energy and Natural Resources	Earth Resistance Testing	Electrical Engineer	1,5	0,5	2	Yes	Yes
Electrical Installation Tester	TS EN 62305-1, TS EN 62305-3	Lighting Protection Systems Testing	Electrical Engineer, Participation in "Earth Resistance Testing Training Programme"	1,5	0,5	2	Yes	Yes
Digital Multimeter	TS EN 12817, TS EN 12819	Cathodic Protection	Electrical Engineer	1,5	0,5	2	Yes	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	Regulation by Ministry of Labour and Social Security	Periodically inspection of pressure vessels and lifting equipments	Graduated from Mechanical Engineering Department	3	0	3	Yes	No
-	International Surveillance Department Procedures	Preshipment Inspection	Preferably Graduation from a Technical Department	1	1	2	No	No
SUMMARY	15 Int. Standards	15 Subject(s)	None	25,5	4,5	30		

Training Group 6: Transportation and Logistics Activities



Apparatus	Related Standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	ADR/ TS EN 13094	Design Type Approval Training (Tanks for MAWP Not Exceeding 0,5 Bar)	Mechanical / Metallurgical and Materials/ Chemical Engineers	5	-	5	Yes	No
-	ADR/ TS EN 12493	Design Type Approval Training (Tanks for LPG)	Mechanical / Metallurgical and Materials/ Chemical Engineers	5	-	5	Yes	No
-	ADR/ TS EN 13530	Design Type Approval Training (Tanks for Cryogenic Fluids)	Mechanical / Metallurgical and Materials/ Chemical Engineers	5	-	5	Yes	No
-	ADR/ TS EN 14025	Design Type Approval Training (Tanks for Chemical Fluids)	Mechanical / Metallurgical and Materials/ Chemical Engineers	5	-	5	Yes	No
-	ADR/TS EN 12972	Tank Inspection Training	Mechanical/Metallurgical and materials/ Chemical Associate Degree	3	1	4	Yes	No

Apparatus	Related Standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	ADR Part 9	ADR Approval of Vehicle Training	Mechanical/Metallurgical and materials/ Chemical/Electrical and Electronics/Otomotiv Associate Degree	3	1	4	Yes	No
-	ADR/IATA/ICAO/IMDG	Design Type Approval and marking of Packagings	Mechanical / Metallurgical and Materials/ Chemical Engineers	5	-	5	Yes	No
-	ADR	Fundamentals of ADR	For people working in the Transportation of Dangerous Goods sector	3	-	3	No	No
-	2007/46/AT	Pre-Approval Inspection According to Main Directive 2007/46/AT	Mechanical / Metallurgical and Materials Engineer	4	-	4	No	No
Lux meter, meter	TS EN 1789+A2	Ambulance Approval Inspection	Mechanical / Metallurgical and Materials Engineers	1	1	2	Yes	No
-	2007/46/AT	Vehicle Type Approval Certification	Mechanical / Metallurgical and Materials Engineers	2	2	4	Yes	No

Apparatus	Related Standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	Regulations	After Market Components Certification (for vehicles)	Mechanical / Metallurgical and Materials Engineers	1	2	3	No	No
SUMMARY	11 Int. standards and related regulations	12 Subjects		42	7	49	9	No Implementation

Training Group 7: Certification Services According to Product Standards



Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
-	Related Int. Standards	Machinery Sector	Conformity Assessment Knowledge according to ISO/IEC 17065 and Basic Product Information*	1	5*	6	Yes	No
-	Related Int. Standards	Chemistry Sector	Conformity Assessment Knowledge according to ISO/IEC 17065 and Basic Product Information*	1	5*	6	Yes	No
-	Related Int. Standards	Electrotechnical Sector	Conformity Assessment Knowledge according to ISO/IEC 17065 and Basic Product Information*	1	5*	6	Yes	No
-	Related Int. Standards	Construction Sector	Conformity Assessment Knowledge according to ISO/IEC 17065 and Basic Product Information*	1	5*	6	Yes	No
-	Related Int. Standards	Food Sector	Conformity Assessment Knowledge according to ISO/IEC 17065 and Basic Product Information*	1	5*	6	Yes	No
SUMMARY		5 Subjects		5	25	30		

***It may changes depending mainly on the product and number of products.**

Training Group 8: Certification of Quality Management Systems



Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
-	ISO 9001	Quality Management Systems Basic / Documentation / Internal Audit	-	5	included	5	No	No
-	ISO 9001	Risk-Based Process Approach	-	2	included	2	No	No
-	ISO 14001	Environmental Management Systems Basic / Documentation / Internal Audit	-	5	included	5	No	No
-	ISO/IEC 27001	Information Security - Management Systems Basic / Documentation / Internal Audit	-	5	included	5	No	No
-	OHSAS 18001	Occupational Health and Safety Management Systems Basic / Documentation / Internal Audit	-	5	included	5	No	No
-	ISO 22000	Food Safety Management Systems Basic / Documentation / Internal Audit	-	5	included	5	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
-	ISO 50001	Train of Trainers on Energy Management Systems	-	3	included	3	No	No
-	ISO 31000	Risk Management - Principles and Guidelines	-	3	included	3	No	No
-	ISO 13485	Medical Devices - Quality Management Systems	-	3	included	3	No	No
-	ISO 28000	Specification For Security Management Systems for the Supply Chain	-	2	included	2	No	No
-	ISO 22301	Business Continuity Management Systems	-	2	included	2	No	No
-	ISO 9001, 14001, 18001, 27001, 22000, 50001	Management Systems Auditor / Lead Auditor Trainings	-	5	included	5	Yes	Yes
-		Continuous Self-Improvement Trainings (i.e. Leadership, Time Management, Awareness, Organizational Communication, Body Language, Stress Management etc.)	-	1	included	1	No	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (day)	Practical (day)	Total (day)	Exam	Implementation
-	ISO 22716	Cosmetics - Good Manufacturing Practices (GMP) - Guidelines on Good Manufacturing Practices	-	2	included	2	No	No
SUMMARY	11 QMS Standards			48	included	48	-	-
Note: Live translator may be required.								

Training Group 9: Halal Certification Services



Apparatus	Related Standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Practical (days)	Total (days)	Exam	Implementation
-	OIC/SMIIC 1	General Guidelines on Halal Food	-	2	5*	7		
-	OIC/SMIIC 2	Guidelines for Bodies Providing Halal Certification	-	3	5*	8		
-	OIC/SMIIC 3	Guidelines for the Halal Accreditation Body Accrediting Halal Certification Bodies	-	3	5*	8		
-	GSO 2055-1	Halal Food – Part 1: General Requirement	-	2	5*	7		
-	GSO 2055-2	Halal Products – Part 2: General Requirements for Halal Certification Bodies	-	3	5*	8		
-	GSO 2055-3	Halal Products – Part 3: General Requirements for Halal Accreditation Bodies Accrediting Halal Certification Bodies	-	3	5*	8		
SUMMARY	6 Int. Standards	6 Subjects	None	16	30	46		

Notes:

***Practical training days may change according to attendees need and agreement.**

Training Group 10: Personnel Certification



Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Exam (days)	Total (days)	Exam	Implementation
-	ISO 9001	Quality Management Systems	40 hours	4	1	5	Yes	No
-	ISO 14000	Environmental Management	150 hours	4	1	5	Yes	No
-	ISO 18001	Occupational Health and Safety Management Systems	150 hours	4	1	5	Yes	No
-	ISO 27001	Information Security Management Systems	100 hours	4	1	5	Yes	No
-	ISO 22000	Food Safety Management	150 hours	4	1	5	Yes	No
-	ISO 50001	Energy Management	80 hours	4	1	5	Yes	No
-	ISO 31000	Risk Management	80 hours	4	1	5	Yes	No
-	ISO 13485	Medical Devices – Quality Management Systems	40 hours	4	1	5	Yes	No
-	ISO 9606 (1-5)	Qualification Testing of Welders	-	-	1	1	Yes	Yes

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Exam (days)	Total (days)	Exam	Implementation
-	ISO 14732	Welding Personnel – Qualification Testing of Welding Operators and Weld Settlers for Mechanized and Automatic Welding of Metallic Materials	-	-	1	1	Yes	Yes
-	ISO 9712	Non-Destructive Testing (NDT) - Qualification and Certification of NDT Personnel	-	-	1	1	Yes	Yes
-	-	Material Safety Data Sheet	-	3	1	4	Yes	Yes
-	-	Good Agricultural Practices in Plant Production	-	9	1	10	Yes	No
-	-	Good Organic Farming Practices	-	9	1	10	Yes	No
-	-	Halal Food Technical Inspection	24 hours	4	1	5	Yes	No
-	TS 10922	Safety Rules for the Construction and Installation of Lifts - Electric Lifts	24 hours	4	1	5	Yes	Yes
-	-	Good Agricultural Practices in Aquaculture	72 hours	4	1	5	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Exam (days)	Total (days)	Exam	Implementation
-	TS EN 1789+A2	Medical Vehicles and their Equipment - Road Ambulances	24 hours	4	1	5	Yes	No
-	-	Good Agricultural Practices Internal Auditor	32 hours	4	1	5	Yes	No
-	ISO/IEC 17020	Conformity Assessment - Requirements for the Operation of Various Types of Bodies Performing Inspection Periodic Inspection of Work Equipment	24 hours	4	1	5	Yes	No
-	TS EN 12817, TS 5141 EN 12954 ve TS EN 15257	Inspection and Requalification of LPG Tanks up to and including 13 m ³ Overground	16 hours	4	1	5	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Exam (days)	Total (days)	Exam	Implementation
-	TS EN 12817, TS 5141 EN 12954 ve TS EN 15257	Cathodic Protection of Buried or Immersed Metallic Structures-General Principles and Application for Pipelines,	16 hours	4	1	5	Yes	No
-	TS EN 12817, TS 5141 EN 12954 ve TS EN 15257	Cathodic Protection - Competence Levels and Certification of Cathodic Protection Personnel	16 hours	4	1	5	Yes	No
-	ISO 14064, ISO 14065, ISO 14066, ISO 14067, ISO 14066, ISO 14080,	Greenhouse Gases	24 hours	4	1	5	Yes	No
-	-	Good Agricultural Practices in Livestock Production		4	1	5	Yes	No

Apparatus	Related standard	Explanation	Training Prerequisites	Training Duration			Evaluation	
				Theoretical (days)	Exam (days)	Total (days)	Exam	Implementation
-	TS EN 12493, TSE EN 13094, TS EN 14025, ISO 12972, ISO 13445-4, ISO 13530-3, ISO 14398-3, ISO 12285-2, ISO/IEC 17020	European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) – Tanker Designer and Inspector	32 hours	-	1	1	Yes	No
-	TS EN 12493, TSE EN 13094, TS EN 14025, ISO 12972, ISO 13445-4, ISO 13530-3, ISO 14398-3, ISO 12285-2, ISO/IEC 17020	European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) – Tanker Inspector and vehicle Inspector	24 hours	-	1	1	Yes	No
SUMMARY	17	24	1086	97	27	124		





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