

(10) LE : Analytical Laboratory, Analyzers, R&D and R&T Engineering

Sr. No.	Ref.	Course Title	Duration (Days)	Discipline
1	LE005(OR1)	Thermo Scientific Equipment	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
2	LE009	pH Analysis & Water Conductivity	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
3	LE010	Solid Phase Extraction Technology and Techniques in the Analytical Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
4	LE012(HW1)	Analysis of Entrococcus in Ambient Waters	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
5	LE013(HW1)	WWTP13: Perform Analyses on Wastewater Samples Correctly for Follow-Up of the Wastewater Treatment Plan	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
6	LE014(HW1)	Seawater Analysis of Heavy Metals in ICP	10	Analytical Laboratory, Analyzers, R&D and R&T Engineering
7	LE015(KJ1)	Water Analysis & Quality Control	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
8	LE016(HW1)	Perform Analyses on Wastewater Samples Correctly for Follow-Up of the Wastewater Treatment Plant	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
9	LE017(HW1)	Interpret Data and Laboratory Analyses Correctly to Control a Wastewater Treatment Plant	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
10	LE017A(HW1)	WWTP15: Interpret Data and Laboratory Analysis Correctly to Control a Wastewater Treatment Plant	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
11	LE018	Standards Method for Water and Wastewater Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
12	LE019(HW1)	Water and Wastewater Chemical Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
13	LE020	Effective Management of the Chemical Analysis Support	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
14	LE021	Advanced Interpretation-Analysis of Water Quality Specification	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
15	LE022	Advanced Water Testing & Chemical Treatment	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
16	LE0023	Oilfield Water Treatment Program	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
17	LE025	Quality Assurance of Chemical Measurements	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
18	LE025(KM1)	Quality Assurance of Chemical Measurements	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
19	LE026(PA4)	Introduce Quality Assurance in a Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
20	LE027	Effective Way of Handling of Quality Non-Conformance	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
21	LE028	Total Quality Management and Laboratory Operation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
22	LE0029	Chemical Laboratory Waste Management	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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23	LE030	Practical Statistical Analysis of Lab Data	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
24	LE031(HW1)	Statistical Analysis of Data and Different Techniques in Control Charting	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
25	LE040	PROCESS ANALYZER TECHNIQUES – ONLINE & OFFLINE (Lab Equipment Overview and Maintenance)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
26	LE048	Certified Laboratory Safety Officers	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
27	LE049	Lab Safety	1	Analytical Laboratory, Analyzers, R&D and R&T Engineering
28	LE050(KP4)	Laboratory Safety (ISO 17025)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
29	LE051	ISO 17025 Awareness Program	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
30	LE052(KM1)	Water Laboratory Safety	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
31	LE053(HW1)	Orientation on ISO 17025 and ISO 9001	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
32	LE060	Practical Problem Solving in Chemical Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
33	LE065	Advanced Chemical Sampling Techniques	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
34	LE065A	Advanced Chemical Sampling Techniques	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
35	LE070	Chemical Laboratory Operations, Equipment, Instruments, Quality & Safety	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
36	LE071	Safety and Quality in Scientific Laboratory السلامة والجودة في المختبرات العلمية	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
37	LE075	Modern Chemical Laboratory: Analytical Instrumentation, Equipment Calibration, Operations, Quality & Safety	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
38	LE076	Quality Manual & Laboratory Organizational Role Model	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
39	LE080	Basic Chemistry for Laboratory Technicians and Analysts	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
40	LE090	Statistical Analysis of Laboratory Data	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
41	LE095	Introduction to Laboratory Automation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
42	LE110	Set Up and Run Experiments	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
43	LE112	Effective Strategies for Selecting the Right Analytical Tools for Solving Laboratory Daily Operations & Customers Related Problems	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
44	LE114	Planning/Budget of Lab Consumables, Materials and Equipment	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
45	LE115	Modern Analytical Laboratory: <i>Management, Operations, Analytical Instrumentation, Equipment, Safety & Quality (ISO 17025)</i>	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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46	LE116(TA1)	Modern Analytical Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
47	LE117(HW1)	Analytical Laboratory Quality Management System	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
48	LE118	Laboratory Consumables Management	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
49	LE120	CSI 2120 Machinery Analyzer	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
50	LE121(NP4)	Varian 450GC Piona+Analyzer	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
51	LE122	Varian Gas Chromatography - Operation and Maintenance	4	Analytical Laboratory, Analyzers, R&D and R&T Engineering
52	LE125	Modern Analytical Laboratory and Instrumentation: Management, Operations, Analytical Instrumentation, Equipment, Safety & Quality (ISO 17025)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
53	LE129	Laboratory Skills	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
54	LE130	Laboratory Equipments, Instruments and Safety	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
55	LE0131	Train-the-trainer: Analytical Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
56	LE135(OR1)	Laboratory Training for Lab Equipments	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
57	LE140	Modern Laboratory Management: Effective Management of the Chemical Analysis Support	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
58	LE141(HW1)	New Trends in Laboratory Management	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
59	LE0142	Laboratory Management: The Role of the Quality Manager and Technical Management	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
60	LE145	Laboratory Information Management System (LIMS)	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
61	LE146	Food Lab Sampling & LIMS	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
62	LE148	Corrosion Control in Gas, Oil and Water: Best Remedial Measures for Causes of Corrosion	4	Analytical Laboratory, Analyzers, R&D and R&T Engineering
63	LE149(KJ1)	Sampling of Crude Oil, Gas & Water	4	Analytical Laboratory, Analyzers, R&D and R&T Engineering
64	LE150	Effective Management of the Chemical Analysis Support	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
65	LE151(PA4)	Perform Basic Chemical Potable Water Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
66	LE152	Certified ISO 17025 Lead Auditor	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
67	LE152(HW1)	ISO 17025 Lead Auditor	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
68	LE153(HW1)	Performing Basic Chemical Analysis Part 3: On-the-Job Training	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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69	LE154	Performing Basic Chemical Analysis <i>Part 3: On-the-Job Training</i>	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
70	LE155	Agilent ChemStation Operation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
71	LE0156	Risk Management & ISO 17025	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
72	LE157	Advanced Course of Biotechnology	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
73	LE158	Agilent GC Technologies & Chemstation Software	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
74	LE159	Agilent 789A GC with MSD 5975C Inert MSD	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
75	LE160	Gas Chromatography Operation, Application, Troubleshooting & Method Validation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
76	LE161	Gas Chromatography Operation, Application, Troubleshooting & Multidimensional Gas Chromatography	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
77	LE162	Practical Multidimensional Chromatography	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
78	LE163	Chromatography for the Oil and Gas Laboratory: Operation, Calibration & Troubleshooting	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
79	LE164	Gas Chromatography Analyzer	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
80	LE165	Agilent Chromatography Technology	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
81	LE166	Gas Chromatography and Modern Chemical Laboratory: Analytical Instrumentation, Equipment Calibration, Operations, Method Validation, Quality & Safety	10	Analytical Laboratory, Analyzers, R&D and R&T Engineering
82	LE0167	Laboratory-Oil & Gas	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
83	LE0168	Calibration of Offline Laboratory Analyzers	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
84	LE0169	Agilent Chromatography Technology and Advanced Gas Chromatography Operation, Calibration, Troubleshooting and Practice	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
85	LE170	GC Troubleshooting & User Maintenance GAS Chromatography	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
86	LE180	GC/MS Technology & Problem Solving	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
87	LE182	Advanced GC/MS Mass Spectra Interpretation & Laboratory Management for Oil Industry Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
88	LE183	Mass Spectrometry	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
89	LE190	Laboratory Quality Management (ISO 17025): SOP, Accreditation, Documentation and Auditing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
90	LE195	Medical Laboratory Quality Management (ISO 15189:2007): SOP, Accreditation, Documentation and Auditing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
91	LE0197	Introduction to Quality Norms Revelevant for Lab Operation (ISO 9001, ISO 17025)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

Sr. No.	Ref.	Course Title	Duration (Days)	Discipline
92	LE0198	Advanced Lab Quality Analysis & Control	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
93	LE200	Process Analyzer Technology	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
94	LE202	Behavior of Gases	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
95	LE203	Mercury Analysis Technique for Gas	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
96	LE204	Mercury (Hg) Analyzer	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
97	LE205(NW1)	Calibration and Control of Online Analyzers	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
98	LE0206	Process Analyzer Sampling System	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
99	LE0207	Oxygen Analyzer, PH Analyzer, Calorimeter & Carbon Monoxide	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
100	LE210	Advanced Gas Chromatography Techniques & Troubleshooting	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
101	LE215	Advanced Gas Chromatography: GC/MS Technology & Problem Solving	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
102	LE220	Data & Method Validation in Analytical Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
103	LE230	Safety in Analytical Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
104	LE235(OR1)	Laboratory Safety & Basic GC Training for Refinery Operations	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
105	LE240	Laboratory Auditing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
106	LE245(HW1)	Laboratory Microbiological On-the-Job Training	15	Analytical Laboratory, Analyzers, R&D and R&T Engineering
107	LE246(HW1)	Microbiological Indoor Air Quality	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
108	LE247(HW1)	Microbiology of Wetlands	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
109	LE248(HW1)	Planktology of Ambient Environment	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
110	LE249(HW1)	Advanced Helminth Ova Analysis and Microscopic Analysis	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
111	LE250(SA1)	Experimental Design Program	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
112	LE252(HW1)	Pseudomonas and Aeromonas	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
113	LE253(HW1)	Sulfate Reducing Bacteria	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
114	LE254(HW1)	Advanced Fluorescence Microscopy	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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115	LE255	Public Health & Microbiology	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
116	LE256	Medical Microbiology	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
117	LE257(HW1)	Advanced Activated Sludge Microscopy	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
118	LE258(HW1)	Advanced Microbiology and Microscopy Management	10	Analytical Laboratory, Analyzers, R&D and R&T Engineering
119	LE259	Laboratory Technology	46W	Analytical Laboratory, Analyzers, R&D and R&T Engineering
120	LE260	Good Laboratory Practice	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
121	LE260(QF2)	Good Laboratory Practice	1	Analytical Laboratory, Analyzers, R&D and R&T Engineering
122	LE261(AP1)	Combined Laboratory Management	4	Analytical Laboratory, Analyzers, R&D and R&T Engineering
123	LE262(AP1)	Laboratory Management: Roles of the Quality Manager and the Technical Management	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
124	LE263(AP1)	Lead Assessor	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
125	LE264(PA4)	Use Standard Laboratory Techniques Correctly	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
126	LE265(HW1)	Using Standard Laboratory Techniques	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
127	LE266	Water Sampling Techniques	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
128	LE267(HW1)	Sampling Collection and Quality in Sampling of Water, Wastewater & Sludge	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
129	LE268	Basic and Advanced Sampling Techniques and Procedures	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
130	LE269(HW1)	Seawater Sampling	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
131	LE270	HPLC: High Performance Liquid Chromatography	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
132	LE271(PA4)	Water Sampling and Chemical Portable Water Analysis	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
133	LE272	Method Validation for Chemical Testing	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
134	LE273	Gas Chromatography & HPLC	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
135	LE274	Gas Chromatography and X-Ray Diffraction (XRD)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
136	LE275	HPLC-ICP-MS/ICP-MS	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
137	LE276	PCR for Virology	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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138	LE277	ICP and GC Testing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
139	LE278	IC & ICP	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
140	LE280	Samples Preparation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
141	LE281	Sour Gas Sample Collection & Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
142	LE0283	Water Sampling	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
143	LE0284	Fluid Evaluation and Sampling for Facilities	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
144	LE290	Advanced GLP: Uncertainty Measurement, Data Validation, Method Validation & Statistical Process Control (SPC) in Analytical Laboratory According to ISO 17025	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
145	LE291(AP1)	Uncertainty of Measurement - Calibration and Testing Program	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
146	LE292(AP2)	Assessor Training Course ISO:IEC 17025:2005	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
147	LE293	Measurement of Uncertainty for Laboratory & Laboratory Information Management System (LIMS)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
148	LE295(OL1)	Advanced Good Laboratory Practice (GLP) and Uncertainty Measurement and to Include ISO 17025 (Understanding Laboratory Quality Management)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
149	LE297(OR1)	Varian ICP MS - Operation and Maintenance	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
150	LE300(GP1)	Analytical Chemistry & Precise Results Generation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
151	LE0301	Service and Troubleshooting Level Training for HPLC Agilent	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
152	LE310	Good Laboratory Practice (GLP) & Statistical Process Control (SPC)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
153	LE311	Good Laboratory Practice (GLP)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
154	LE311(HW1)	GLP (Good Laboratory Practice)	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
155	LE312(PD1)	Awareness of GLP	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
156	LE313(PD1)	Advanced GLP	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
157	LE320	Statistics, Validation, Uncertainty & Quality of Chemical Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
158	LE321	Validation, Quality Control Charts & Uncertainties	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
159	LE330	Online Analyzers Application and Troubleshooting	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
160	LE331	Best Industrial Practices Applied to Validate and Correlate Lab Instruments to Process Online Analyzers	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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161	LE334	Best Industrial Practices Applied to Validate and Correlate Lab Instruments to Process Online Analyzers	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
162	LE340	Best Practice of Measurement Uncertainty in Chemical Testing Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
163	LE341(ZA2)	Uncertainty Calculation in Chemical and Core Analysis	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
164	LE350	Analytical Instrumentation for Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
165	LE359	Train-The-Trainer: Analytical Laboratory	10	Analytical Laboratory, Analyzers, R&D and R&T Engineering
166	LE360	Sample Development & Preparation in Analytical Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
167	LE361	Process Sample System	2.5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
168	LE362(KN1)	Refinery Laboratory: Analytical Methods, Procedures, Quality Control, Technology, Analysis & Best Practice	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
169	LE363	Certified Petroleum Laboratory Technician	8W	Analytical Laboratory, Analyzers, R&D and R&T Engineering
170	LE366	Certified Petroleum Laboratory Technician Module 1 of 3	2W	Analytical Laboratory, Analyzers, R&D and R&T Engineering
171	LE367	Certified Petroleum Laboratory Technician Module 2 of 3	2W	Analytical Laboratory, Analyzers, R&D and R&T Engineering
172	LE368	Certified Petroleum Laboratory Technician Module 3 of 3	2W	Analytical Laboratory, Analyzers, R&D and R&T Engineering
173	LE370	Validation & Qualification in Analytical Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
174	LE371	Writing SOP's	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
175	LE380	Fundamentals of Analytical Chemistry	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
176	LE381	Basic Principle of Analytical Chemistry	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
177	LE382	Basic Principles of Sample Collection and Field Testing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
178	LE385(HW1)	Chemical Solid & Liquid Waste Management, Chemistry Lab Supervision - Lab Benchmarking	10	Analytical Laboratory, Analyzers, R&D and R&T Engineering
179	LE390	Spectroscopic Methods in Analytical Chemistry	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
180	LE395	Fourier Transform Infrared Spectroscopy (FTIR)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
181	LE396	Atomic Absorption Instrument	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
182	LE397	Fourier Transform Infrared Spectroscopy Concept & Application	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
183	LE400	Industrial Analytical Chemistry	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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184	LE401	Petroleum Product Testing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
185	LE0402	Advanced Analytical Chemistry & Petroleum Testing for Lab Technicians for Oil & Gas Industry	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
186	LE405	Principles of Forensic Evidence	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
187	LE406	Paint Analysis or Glass Analysis Techniques for Forensic Evidence	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
188	LE410	Method Validation & Uncertainty Calculation for Test Method	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
189	LE411	Method Validation and Uncertainty of Measurement	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
190	LE412	Measurement Traceability & Testing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
191	LE413	Microbiological Identification & Enumeration of Food Safety Hazards	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
192	LE414	Estimation and Identification of Salmonella and Helminth Ova	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
193	LE415	Microbiological Testing for Helminth Ova and Salmonella in Waste Water & Sludge	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
194	LE416(HW1)	Microbiological Aspects of Wastewater	10	Analytical Laboratory, Analyzers, R&D and R&T Engineering
195	LE417	Biological Testing for Potable Water	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
196	LE420	Trace Analysis: Applications, Methodologies, Techniques, Sample Preparation, Measurement and Reporting	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
197	LE430	Modern Laboratory Safety & Health	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
198	LE431(HW1)	Risk Assessment in the Laboratory	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
199	LE0432	Laboratory Risk Management	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
200	LE435(OR2)	Safety in Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
201	LE438(KJ1)	Safety Procedure in Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
202	LE440(OW1)	Laboratory Instrument Calibration	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
203	LE441(HW1)	Calibration	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
204	LE443(KJ1)	Laboratory Instruments Calibrations and Troubleshooting Techniques	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
205	LE444(PA4)	Maintenance and Calibration of Laboratory Equipment	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
206	LE446	Advances & Routine Equipment Calibration & PM Frequency-Best Practices	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering

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207	LE447	ISO/IEC17025: General Requirement for Competence of Testing & Calibration Laboratories	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
208	LE448	Instrument Standardization and Calibration in Accordance with ISO 17025	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
209	LE449	ISO 17025:2017 Standard	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
210	LE450	Laboratory Environmental Analysis: Air, Soils & Water	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
211	LE451	Accreditation of Laboratory for Meeting Environmental Standards & Regulations (ISO 14001)	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
212	LE452	Soil Analysis	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
213	LE455	Work Safely in a Laboratory Environment	1.5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
214	LE455(PA4)	Work Safely in a Laboratory Environment	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
215	LE456(HW1)	Monitoring Environmental Quality in the Workplace	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
216	LE457	Continuous Emissions Monitoring System	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
217	LE458	CEMS Operations and Maintenance (Advanced)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
218	LE460	Separation Technology in Analytical Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
219	LE480	Environmental Laboratory Awareness for Non-Laboratory Personnel	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
220	LE490	Uncertainty of Measurement and Method Validation in Accordance with ISO 17025	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
221	LE492(KM1)	ISO 17025/9001 Lead Auditor	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
222	LE493	ISO/IEC 17025:2017 Lead Auditor/Assessor	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
223	LE498	Advanced Crude Oil Testing & Chemical Spills	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
224	LE500	Advanced Laboratory Statistical Techniques	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
225	LE0505	Crude Oil Testing & Water Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
226	LE0507	Petroleum Physical Testing	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
227	LE0508	Review Crude and Water Quality Reports and Take Remedial Actions	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
228	LE509	Advanced Crude Oil Testing, Specifications & Equipment	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
229	LE510	Solid Hydrocarbon Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

Sr. No.	Ref.	Course Title	Duration (Days)	Discipline
230	LE511	Engine Oil Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
231	LE512	Lubricant Oil & Grease Testing & Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
232	LE513	Water Analysis, Problem Solving, Statistical Analysis & Laboratory Management	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
233	LE514(TE2)	Water Analysis & Reporting (DR3900)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
234	LE515	Water Analysis in Petroleum Industry	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
235	LE516(KP4)	Lab Analysis of Crude Oil, Natural Gas & Petroleum Products	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
236	LE517	Natural Gas Testing & Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
237	LE518(KP4)	Crude and Petroleum Product Specification and Analysis	4	Analytical Laboratory, Analyzers, R&D and R&T Engineering
238	LE519	Gas Testing: Natural and Refinery Gases	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
239	LE520	Drinking Water Analysis for Biologists	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
240	LE521	Water Quality Laboratory	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
241	LE522(KM1)	Drinking Water Analysis & Quality Control	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
242	LE523	Hydraulic Oil Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
243	LE524	Laser Moisture Analysers Operation & Maintenance	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
244	LE525(KM1)	Uncertainty Measurement, Statistical Process Control (SPC) & Method Validation in Accordance with ISO 17025	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
245	LE0526	Review Well Productions to Meet Export Specifications	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
246	LE0527	Water Quality Testing & Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
247	LE528	Water and Equipment Testing	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
248	LE529	Testing of Bromate, Ions and Cations in Drinking Water Using an IC-3000 or IC-5000	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
249	LE530	Inductively Coupled Plasma (ICP): Practices, Techniques & Applications	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
250	LE531	Metal Testing Using AAS (Atomic Absorption Spectrometry) & ICP (Inductively Coupled Plasma) Instruments	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
251	LE0532	Inductively Coupled Plasma Atomic, Emission/Mass Spectrometry (ICP-AES,ICPMS)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
252	LE0533	Atomic Absorption Spectroscopy	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering

Sr. No.	Ref.	Course Title	Duration (Days)	Discipline
253	LE0535	Water Analysis & Equipment Calibration	8	Analytical Laboratory, Analyzers, R&D and R&T Engineering
254	LE540	Ion Chromatography	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
255	LE550	ISO 17025:2005 Internal Auditor	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
256	LE0551(AD3)	ISO 17025 Training	4	Analytical Laboratory, Analyzers, R&D and R&T Engineering
257	LE555	Internal Quality Control for Microbiologists	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
258	LE560	Advanced Statistical Analysis of Laboratory Data: Method Development, Method Validation, Uncertainty, Calibration, SQC and Data Interpretation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
259	LE561	Practical Workshop on Statistical Analysis of Laboratory Data and Quality Control Control Charts	3	Analytical Laboratory, Analyzers, R&D and R&T Engineering
260	LE564	Laboratory Improvement & Data Analysis Using Lean Six Sigma Strategies	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
261	LE565(QF2)	Statistical Analysis of Laboratory Data and Method Validation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
262	LE566(PA4)	Method Validation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
263	LE0567	Method Validation Under Good Laboratory Practices	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
264	LE0568	Laboratory Services	1	Analytical Laboratory, Analyzers, R&D and R&T Engineering
265	LE600	Chemist Development Program	12W	Analytical Laboratory, Analyzers, R&D and R&T Engineering
266	LE601	Polymer Viscosity Stability Tests	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
267	LE0602	Polymer Analysis & Testing	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
268	LE610(KP4)	Water Quality Specification	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
269	LE650	TOC & TC Analysis (مختبرات) طرق التحليل	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
270	LE655	Laboratory Safety and Infection Control	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
271	LE0660	Animal Feed Inspection and Analysis	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
272	LE700	Lab Leadership, Instrument Management, Basic Quality Management & Statistics	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
273	LE720	ISO 17020 Inspection Bodies Operation & Evaluation	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
274	LE725	Metallurgical Lab	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
275	LE0735	Innovation and Creativity in Laboratory	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering

Sr. No.	Ref.	Course Title	Duration (Days)	Discipline
276	LE0736	Value Creation in Laboratory	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
277	LE0737	Artificial Intelligence in Laboratory	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
278	LE0738	Innovative Materials in Laboratory	2	Analytical Laboratory, Analyzers, R&D and R&T Engineering
279	LE800	NMR: <i>Nuclear Magnetic Resonance</i>	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
280	LE805(HW1)	BOD Skalar	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
281	LE900	DNA	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
282	LE905	Seawater Analysis of Organic & Physical Aggregates Components	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
283	LE906	Seawater Analysis Using Segment Flow (San++Skalar)	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering
284	LE915	Advanced Test on Elastomeric Joint Sealants	5	Analytical Laboratory, Analyzers, R&D and R&T Engineering