



PLC Programming & Troubleshooting: Advanced Level

Instrumentation, Control & Automation

QGT-INS-124 | Advanced | 5 or 10 days | Online, classroom, in-house

Course overview

PLC Programming & Troubleshooting: Advanced Level is an advanced programme for experienced practitioners in PLC Programming & Troubleshooting. It covers the principles, the requirements of ISA, IEC 61511, IEC 61508 and IEC 62443, and the practical methods used on site, with case studies from operations in the Gulf, Africa and worldwide. Available online, in the classroom in 60 cities, or in-house.

What participants will be able to do

- Explain the principles, terminology and scope of PLC Programming & Troubleshooting
- Apply the relevant requirements of ISA, IEC 61511, IEC 61508 and IEC 62443
- Apply advanced analysis methods to real operating data
- Recognise common problems, risks and root causes and choose the right corrective action
- Prepare an improvement plan for their own site or organisation

Who should attend

Designed for instrument and control engineers, technicians and control room staff with at least three years of experience.

Course outline (5 days)

Day 1: Core principles revisited

Fast review and recent changes in ISA, IEC 61511, IEC 61508 and IEC 62443

Day 2: Advanced analysis methods

Detailed techniques, data interpretation and calculations

Day 3: Design and performance optimisation

Improving reliability, efficiency and cost

Day 4: Troubleshooting complex cases

Diagnosing multi-cause problems from field data

Day 5: Risk, decisions and integration

Building a risk-based plan and presenting recommendations

What the 10-day edition adds

Day 6: Applied project, part 1 – Apply the week-one methods to a case from your organisation

Day 7: Data and digital tools – Software, spreadsheets and digital tools used in practice

Day 8: Lessons from incidents and audits – What investigations and audit findings teach

Day 9: Applied project, part 2 – Complete, test and refine your solution

Day 10: Presentations and final assessment – Present to the group and complete the final assessment

Fees (USD per participant)

Duration	Live online	Classroom	In-house
5 days	\$3,000	\$5,500	On quote
10 days	\$5,500	\$9,900	On quote

Fees include course material and certificate of completion; classroom fees include refreshments and lunch. In-house training is priced per group.

Dates and cities 2027–2030

Dates	City	Format	Duration	Fee
21 Feb – 4 Mar 2027	Salalah	Classroom	10 days	\$9,900
21–25 Jun 2027	Casablanca	Classroom	5 days	\$5,500
5–16 Jul 2027	Brussels	Classroom	10 days	\$9,900
18–22 Jul 2027	Alexandria	Classroom	5 days	\$5,500
4–15 Oct 2027	Online (live)	Online (live)	10 days	\$5,500
16–27 Apr 2028	Jeddah	Classroom	10 days	\$9,900
22–26 May 2028	Budapest	Classroom	5 days	\$5,500
4–15 Jun 2028	Amman	Classroom	10 days	\$9,900
23–27 Oct 2028	Copenhagen	Classroom	5 days	\$5,500
30 Oct – 10 Nov 2028	Online (live)	Online (live)	10 days	\$5,500
12–23 Mar 2029	Stockholm	Classroom	10 days	\$9,900
30 Apr – 4 May 2029	Toronto	Classroom	5 days	\$5,500
7–18 May 2029	Istanbul	Classroom	10 days	\$9,900
16–20 Jul 2029	Cape Town	Classroom	5 days	\$5,500
5–16 Nov 2029	Online (live)	Online (live)	10 days	\$5,500
3–14 Feb 2030	Amman	Classroom	10 days	\$9,900
23–27 Jun 2030	Erbil	Classroom	5 days	\$5,500
30 Jun – 11 Jul 2030	Sharm El Sheikh	Classroom	10 days	\$9,900
30 Sep – 4 Oct 2030	Bangkok	Classroom	5 days	\$5,500
4–15 Nov 2030	Online (live)	Online (live)	10 days	\$5,500

How to register

Register online or scan the code

<https://qimmatrainig.com/courses/plc-programming-and-troubleshooting-advanced-level/>

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