

QUANTUM COMPUTING

Quantum Computing Fundamentals

QUANTUM TECHNOLOGY COURSE

Build a working understanding of qubits, circuits, algorithms and hardware. Learn to assess computing capabilities, error correction and cloud platforms without advanced mathematics.

DURATION

6 hours

Short professional course

LEVEL

Foundational

No physics prerequisite

ON-DEMAND FEE

US\$499

Online on-demand

Build the grounding to judge the claims.

WHAT YOU WILL LEARN

- ✓ Explain qubits, gates, circuits and probabilistic measurement.
- ✓ Compare five hardware approaches using more than qubit count.
- ✓ Understand error correction and physical versus logical qubits.
- ✓ Evaluate algorithms, cloud access and demonstrated capabilities.

WHO SHOULD ATTEND

Technology professionals, enterprise architects, security professionals, data scientists, software developers and technical leaders evaluating or planning for quantum computing.

PREREQUISITES

No formal prerequisites. A physics background and advanced mathematics are not required.

Why Quantum Academy

The course draws on Quantum Systems Integration by Marin Ivezic and faculty experience working with quantum engineering and integration teams.

What you will study

Computing concepts, hardware tradeoffs and a practical method for evaluating progress.

01 Quantum Computing Concepts

Explore qubits, gates, circuits, superposition, entanglement and measurement.

02 Quantum Algorithms

Assess Shor's and Grover's algorithms, simulation and the limits of quantum advantage.

03 Hardware Modalities

Compare superconducting, trapped-ion, photonic, neutral-atom and silicon-spin systems.

04 Error Correction and the Path Forward

Examine physical and logical qubits, correction overhead and fault tolerance.

05 Cloud Platforms and Programming

Compare cloud access, tools and costs; distinguish simulators from real hardware.

06 Evaluating Claims

Separate demonstrations from roadmaps and assess the metrics behind announcements.

Formats and fees

Online on-demand	US\$499
Live online	US\$749
In person	US\$999
Private team training	Custom quote

What is included

- Course handbook: full material with written instructor notes.
- 180 days of online on-demand access. Where that course is not yet published, the 180 days start on the day it is.
- PDF copy of Quantum Systems Integration by Marin Ivezic, at no extra cost.

Includes a certificate of completion. This is not a professional certification.

Explore the course

View course details at QuantumAcademy.com



On-demand enrollment opens soon. Check the course page for live dates and availability.

support@quantumacademy.com | +1 (312) 803-4969

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