

Quantum Technology for Financial Services

Quantum Technology

A four-hour course on what quantum computing, sensing and networking can do for banks, insurers and payment firms. We cover the use cases banks fund, how far each has progressed, how to judge the claims, and what to prepare now.

Duration

4 hours

Short professional course

Level

Executive

No prerequisites

On-demand fee

US\$399

Online on-demand

Size quantum investment to the evidence.

What you will learn

- ✓ Explain what quantum computing, sensing and networking can and cannot do for financial services today
- ✓ Tell a hardware result from a company announcement or a resource estimate, and physical qubits from logical ones
- ✓ Judge a quantum finance claim against the classical method it was compared with
- ✓ Name the signals that would bring quantum advantage in finance closer
- ✓ Set up a lean quantum team with a watch list, pilot criteria and a budget sized to the evidence
- ✓ Connect quantum investment to the post-quantum migration your regulators expect

Who should attend

Executives, program managers, strategy and innovation leads, CISOs, quantitative analysts and data scientists at banks, insurers, asset managers and payment firms. Also useful for risk and audit teams asked to assess a quantum program, and for consultants who advise financial institutions.

Prerequisites

None. No technical background is assumed.

Why Quantum Academy

Quantum Academy teaches from *Quantum Systems Integration*, written by the course author, and faculty experience with quantum engineering and integration teams. Hardware results, announcements and resource estimates are clearly distinguished.

What you will study

5 modules · 4 hours · No exam

01 Judging Quantum Claims – 45 minutes

Separate hardware results, announcements and estimates; distinguish physical from logical qubits. Test classical baselines and roadmap commitments using HSBC and IBM's 2025 bond-trading study.

02 Quantum Computing in Financial Services – 75 minutes

Cover derivative pricing, risk, portfolio optimization, machine learning and insurance applications. Published pricing estimates require 4,700 to 8,000 logical qubits. No portfolio study has shown an advantage over strong classical solvers. Examine clock-rate requirements, competing GPU methods and memory-advantage claims not yet costed at commercial scale.

03 Networking, Randomness and Sensing – 45 minutes

Review bank QKD pilots, their use alongside post-quantum cryptography, certified randomness and quantum random number generators. Examine validation and the small current role of sensing in finance.

04 What Banks and Insurers Are Doing – 30 minutes

Review HSBC, JPMorganChase, Vanguard, Crédit Agricole, BBVA, Wells Fargo, Goldman Sachs and MAS programs. Distinguish hardware results, announcements and estimates.

05 Preparing Now – 45 minutes

Connect post-quantum migration to G7 guidance. Size teams to the evidence, benchmark experiments, track signals that change timelines, and draft a one-page quantum brief for your board.

Formats and fees

Online on-demand	US\$399
Live online	US\$599
In person	US\$799
Private team training	Custom quote

What is included

- Course handbook: full material with written instructor notes.
- Use-case table with sources and results labelled as demonstrated, announced or estimated.
- PDF copy of *Quantum Systems Integration*, written by the course author.
- 180 days of access to the online on-demand course.

Upon completion, you receive a Quantum Academy certificate of completion. It confirms that you completed the course and is separate from Quantum Academy's professional certifications.

Explore the course

See dates and enroll on the [course page](#).

quantumacademy.com/courses/quantum-technology-financial-services/



Quantum Academy credentials are private professional credentials issued by Quantum Academy, a trade name of Post-Quantum Institute. They are not government-issued licenses, accredited degrees, or academic credit, and earning one does not guarantee employment, promotion, regulatory approval, or any other specific outcome.

Quantum Academy programs are educational and informational only, and are not legal, compliance, or engineering advice.