

5-Day Quantum Certificate



A week-long training that takes participants from first principles to teaching quantum themselves. Each day pairs hands-on experiments with Qubi with the teaching techniques behind them, and the week ends with a teaching practicum and the Qolour quantum certificate.

DURATION

5 days

FORMAT

Hands-on, practicum

AUDIENCE

Educators and pros

GROUP SIZE

2 per Qubi pair

PREREQ

None

OUTCOME

Quantum certificate

Sample schedule. Dates and daily times are set when you book.

DAY 1 Single qubits

- Measurement and the Born rule, derived from experiment
- Gates and the Bloch sphere
- Tomography and fidelity games

DAY 2 Entanglement

- Bell pairs and the Singlet state
- Steering, and why entanglement cannot signal
- The Bellish inequality and three-qubit states

DAY 3 Quantum networking

- BB84 by hand, with an eavesdropper
- Ekert91 with entangled pairs
- The hardware, and why it matters now

DAY 4 Quantum applications

- The state of quantum computing and the problem with noise
- An overview of quantum algorithms
- Quantum machine learning and real use cases

DAY 5 Teaching practicum and certification

- Plan a lesson with the Qolour lesson library
- Teach a live demo to the group, with feedback
- Final assessment and certificate

WHAT PARTICIPANTS LEAVE WITH

A working understanding

Measurement, entanglement and networking, from experiment.

Ready-to-teach lessons

Lesson plans and slides you can use the next week.

Teaching practice

A live demo taught to peers, with feedback.

A certificate

The Qolour quantum certificate on completion.