WORKSHOP STRUCTURE

5-Day Quantum Certificate

qolour

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.

hello@qolour.com