

QSC Casper 2026 - Lectures & Labs

Day		Lectures (Zubairy)	Labs (7 groups of 4 students + 2 HS teachers + 1 IQSE mentor)
1		<i>Birth of quantum mechanics: Planck, Einstein, Bohr, de Broglie</i>	Photoelectric effects
2		<i>Polarization, single photon</i>	Radio waves
3		<i>Superposition, Schrodinger's cat, Entanglement</i>	Polarization of microwaves & visible light
4		<i>Quantum interference: Young's double slit, delayed choice, quantum eraser</i>	Young's double slit experiment
5		<i>From Einstein-Podolsky-Rosen to Bell</i>	SPDC Bell's inequality
6		<i>Quantum communication: RSA, BB-84</i>	Quantum eraser
7		<i>Counterfactual communication</i>	BB84 protocol and quantum computing
8		<i>Quantum computing 1: Introduction, quantum logic gates</i>	Quantum Computer programming - I
9		<i>Quantum computing 2: Shor's algorithm</i>	Quantum Computer programming - II
10		<i>Quantum computing 3: Shell game and Grover's algorithm</i>	Departure Day