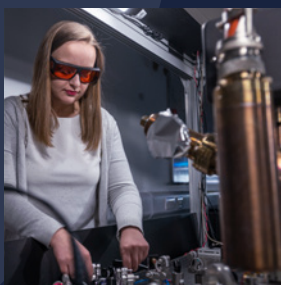
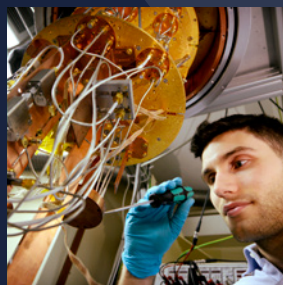




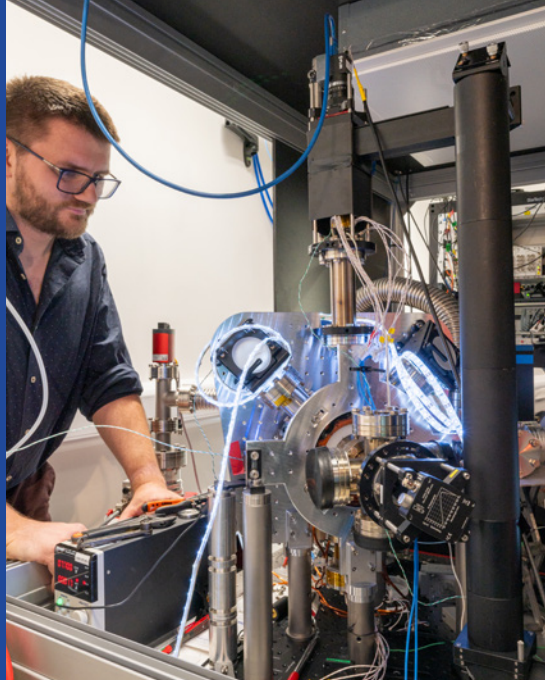
UNIVERSITY OF
OXFORD

MSc in Quantum Technologies

University of Oxford



The MSc in Quantum Technologies is an interdisciplinary course providing a technical overview of modern quantum technologies for computing, sensing and communications. The course has an emphasis on **industry connections, practical training and research projects.**



Technical knowledge, practical training and collaboration with industry

Quantum technologies across quantum computing, sensing and communications have the potential to bring transformative changes across different sectors from scientific research to industrial applications.

The MSc in Quantum Technologies at the University of Oxford is taught across the Departments of Physics, Engineering Science, Materials, Computer Science, Mathematics and Chemistry. This 12-month master's degree will provide students with the central technical background in these technologies, combined with hands-on practical training through short modules and research experience through an extended four-month project.

There will be close engagement with industry through regular seminars and networking sessions, practical training, and also research projects based in industry, or in close collaboration with industrial partners.

Course structure

The MSc in Quantum Technologies has been designed to make the subject material accessible to students with backgrounds in engineering, mathematics, computer science and related disciplines, as well as physics. It has been designed as a new course, with close industry engagement.

Students will complete core courses including:

- **Quantum Mechanics for Quantum Technologies** (optional for students with a quantum mechanics background)
- **Quantum Technologies and their applications** with detailed introductions to quantum computing, communications and sensing
- **Hardware for Quantum Technologies** covering the details of leading hardware platforms for quantum computing and sensing
- **An Industrial Seminar Series** with presentations from partner organisations on translation of quantum technologies, as well as opportunities for networking
- **Quantum Technologies Practical Training** with short modules offering hands-on experience working with different technologies, such as building optics setups, working with control systems, or programming quantum computers



Complementary elective modules will allow students to specialise in topics ranging from materials for quantum technologies to quantum algorithms.

All students will complete a 4-month project and dissertation, running from May to August, with an option to do this in collaboration with an industry partner. This will involve experimental, theoretical or computational research in areas related to the development of near-term or future quantum technologies.

For more information:

www.ox.ac.uk/admissions/graduate/courses/msc-quantum-technologies

Email: mqtech@physics.ox.ac.uk



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