

QUANTUM ENGINEERING

MASTER'S PROGRAM | YEAR 1

COURSES & INTERNSHIPS

Semester 1

ECTS

Fundamentals of quantum systems	9
- Quantum mechanics	3
- Quantum optics	3
- Quantum communications	3
Mathematical methods for quantum engineering I	2
Introduction to quantum computing	2
Support hardware for quantum technologies	3
- Hardware for photons (Photonic devices and systems)	1
- Hardware for electrons (Electronic devices and systems)	1
- Hardware for atoms (Atomic devices and systems)	1
Quantum matter	6
- Quantum theory of materials (Electrons and devices)	3
- Atomic physics	3
Quantum lab works/Lab projects /Interface with private sector	7
Innovation and entrepreneurship in quantum technologies	1

Semester 2

ECTS

Research internship I in the private or academic sector	15
Research internship II in the private or academic sector	15



PSL's quantum engineering programme is a 5-year PhD Track that provides cutting-edge training, with guaranteed funding for 2 Master's years and 3 doctoral years.
The master's program is spread over two years and 120 ECTS, requesting full-time studies. Each academic year is divided into two semesters.