

# FACULTY OF SCIENCE

## DEPARTMENT OF PHYSICS

### QUANTUM TECHNOLOGIES

**Master of Science in Quantum Technologies**  
**Postgraduate Diploma in Quantum Technologies**  
**Postgraduate Certificate in Quantum Technologies**

*These regulations are to be read in conjunction with [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).*

#### **Admission**

1. Notwithstanding the [General Academic Regulations - Postgraduate Taught Degree Programme Level](#), applicants shall possess:
  - i. a degree (or, in the case of direct entry to the degree of MSc, a first or second class Honours degree) from a United Kingdom University (in an appropriate discipline); or
  - ii. a qualification deemed by the Programme Director (or nominees) acting on behalf of Senate to be equivalent to (i) above. This may include a requirement for appropriate industrial experience.
2. Applicants may be required to attend an interview.

#### **Place of Study**

3. Some individual research projects may require off-campus work.

#### **Mode of Study**

4. The programmes are available by full-time and part-time study.

#### **Curriculum**

5. All students shall undertake an approved curriculum as follows:
  - i. for the Postgraduate Certificate no fewer than 60 credits
  - ii. for the Postgraduate Diploma no fewer than 120 credits
  - iii. for the degree of MSc no fewer than 180 credits including a project.

#### **Compulsory Modules**

| <b>Module Code</b> | <b>Module Title</b>                                       | <b>Level</b> | <b>Credits</b> |
|--------------------|---|--------------|----------------|
| PH949              | Physics Skills  | 5            | 20             |
| PH988              | Topics in Quantum Physics                                 | 5            | 20             |
| PH562              | Advanced Topics in Quantum Optics                         | 5            | 20             |
| PH913              | Advanced Topics in Quantum Physics - Quantum Technologies | 5            | 20             |
| PH957              | Topics in Photonics                                       | 5            | 20             |

20 credits chosen from list of option modules:

### **Optional Modules**

| <b>Module Code</b> | <b>Module Title</b>                             | <b>Level</b> | <b>Credits</b> |
|--------------------|---|--------------|----------------|
| PH955              | Advanced Nanoscience 1                          | 5            | 20             |
| PH968              | Experimental Laboratories                       | 5            | 20             |
| PH459              | Topics in Atomic, Molecular and Nuclear Physics | 5            | 20             |

### **Students for the degree of MSc only:**

| <b>Module Code</b> | <b>Module Title</b> | <b>Level</b> | <b>Credits</b> |
|--------------------|---------------------|--------------|----------------|
| PH952              | Project             | 5            | 60             |

Such other Level 5 modules as may be approved by the Programme Director to bring the total number of Level 5 modules to at least 150.

Not all optional modules on this list will be available in each academic year. Please check your programme handbook for confirmation of which optional modules will run.

### **Examination, Progress and Final Assessment**

6. See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).
7. The final award will be based on performance in the examinations, coursework and the project.

### **Award**

8. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Quantum Technologies, a candidate must have accumulated no fewer than 180 credits of which 60 must have been awarded in respect of the project PH952.
9. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Quantum Technologies, a candidate must have accumulated no fewer than 120 credits from the taught modules of the programme.
10. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Quantum Technologies, a candidate must have accumulated no fewer than 60 credits from the taught modules of the programme.