# QUANTUM COMPUTING, MASTER OF SCIENCE (M.S.)

The Master of Science in Quantum Computing requires 30 credits including 7 core courses and 3 electives.

| Course | Title | Credits |
|---|---|---|
| **Core courses** | | |
| MSQC601 | (Mathematics and Methods of Quantum Computing) | 3 |
| MSQC602 | (The Physics of Quantum Devices) | 3 |
| MSQC603 | Principles of Machine Learning | 3 |
| MSQC604 | (Quantum Computing Architectures and Algorithms) | 3 |
| MSQC605 | (Advanced Topics in Quantum Computing) | 3 |
| MSQC606 | (Practical Quantum Computing) | 3 |
| MSQC607 | (Advanced Topics in Quantum Computing) | 3 |
| **Elective courses** | | **9** |
| MSQC610 | (Quantum Machine Learning- elective) | |
| MSQC611 | (Quantum Networks- elective) | |
| MSQC612 | (Quantum Computing Hardware- elective) | |
| MSQC613 | (Quantum Monte Carlo and Applications- elective) | |
| MSQC614 | (Quantum Information Theory- elective) | |
| MSQC615 | (Quantum Thermodynamics- elective) | |
| **Total Credits** | | **30** |