COURSE DETAIL

INTRODUCTION TO QUANTUM COMPUTING
Country United Kingdom - Scotland
Host Institution University of Edinburgh
Program(s) Scottish Universities,University of Edinburgh
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 113
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO QUANTUM COMPUTING
UCEAP Transcript Title INTRO QUANTUM COMP
UCEAP Quarter Units 4.00
UCEAP Semester Units 2.70

Course Description
This course offers an overview of the rapidly growing field of Quantum Computation (QC). The course starts with a brief introduction of the mathematical framework of QC. Students learn two models of quantum circuit and measurement-based quantum computing, and through these models examine various key concepts in QC such as entanglement and teleportation. In order to compare QC and classical computing, the course also presents simple quantum algorithms with their complexity analysis. The course finishes by highlighting the recent development of the field in secure delegated QC.

Language(s) of Instruction
English

Host Institution Course Number
INFR11099

Host Institution Course Title
INTRODUCTION TO QUANTUM COMPUTING

Host Institution Course Details

Host Institution Campus
Edinburgh

Host Institution Faculty

Host Institution Degree

Host Institution Department
Informatics

Course Last Reviewed

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