COURSE DETAIL

BASIC QUANTUM MECHANICS
Country Sweden
Host Institution Lund University
Program(s) Lund University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Physics
UCEAP Course Number 142
UCEAP Course Suffix
UCEAP Official Title BASIC QUANTUM MECHANICS
UCEAP Transcript Title BASIC QUANTUM MECH
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This is an introductory course in Quantum Mechanics. It starts with a brief historical background and discuss the basic ideas and postulates of quantum theory. Schrödingers wave equation are then introduced and students learn how to solve it for potentials in one dimension, such as wells and barriers. This is followed by concepts and formalism of operators, observables and measurements in quantum mechanics. The course ends by discussing the quantum model for an harmonic oscillator and introducing the hydrogen atom as a basic example of "round," three dimensional quantum mechanics.

Language(s) of Instruction
English

Host Institution Course Number
FYSB22

Host Institution Course Title
BASIC QUANTUM MECHANICS

Host Institution Course Details
https://www.lunduniversity.lu.se/lubas/i-uoh-lu-FYSB22

Host Institution Campus
Science

Host Institution Faculty

Host Institution Degree

Host Institution Department
Physics

Course Last Reviewed
2021-2022

Print