COURSE DETAIL

INTRODUCTION TO QUANTUM MECHANICS

Country
United Kingdom - England

Host Institution
Exeter College, University of Oxford

Program(s)
Summer in Oxford

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Physics

UCEAP Course Number
139

UCEAP Course Suffix
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UCEAP Official Title
INTRODUCTION TO QUANTUM MECHANICS

UCEAP Transcript Title
INTRO QUANTUM MECH

UCEAP Quarter Units
6.00

UCEAP Semester Units

4.00

Course Description
Quantum mechanics is fundamental to many areas of chemistry, in particular our understanding of bonding and spectroscopy. This course provides an introduction to quantum theory from a chemist's perspective, focusing on the basics and spectroscopy of atoms; bonding is not discussed. An emphasis is placed on developing a clear understanding of quantum mechanical concepts such as the wave function and its connection to classical mechanics, as well as providing students with an understanding of essential concepts such as uncertainty and the Hamiltonian. Students enrolling in this course should be confident in algebra, trigonometry, and calculus involving basic differentiation. A general physical chemistry background is desirable, ideally in the form of an introductory physical chemistry course or thermodynamics.

Language(s) of Instruction
English

Host Institution Course Number

Host Institution Course Title
INTRODUCTION TO QUANTUM MECHANICS

Host Institution Course Details

Host Institution Campus
Exeter College

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed

Print