



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Fundamentals of Quantum Mechanics For Materials Scientists

2021-1-F5302Q033

Aims

The main goal of this course is to provide a basic knowledge of quantum mechanics and the formal tools needed to fully understand the subsequent advanced physics courses of the Master.

Contents

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Detailed program

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Prerequisites

Basic physics concepts and (likely) some quantum ideas in a modern physics course.

Teaching form

Theory lessons by using slides and/or blackboard, including a focus on some exercises.

Note that due to the Covid-19 emergency, during the period in which restrictions to the presence of the student at the university will persist, teaching will have a mixed form: in-class lectures and online video lectures (in live streaming or downloadable by the present e-learning platforms)

Textbook and teaching resource

Slides are made available to the students through the present e-learning platform.

Main Textbook:

L.I. Deych, Advanced Undergraduate Quantum Mechanics.

P.R. Berman, Introductory Quantum Mechanics

S.M. Blinder, Introduction to quantum Mechanics in Chemistry, Materials Science, Biology

Semester

First semester (from October to January)

Assessment method

Students are evaluated through a written exam (two exercises) followed by an oral one.

During the Covid-19 emergency, both oral and written exams will be conducted remotely. The WebEx web conferencing application will be used, and the link to join the conference will be published on the e-learning web page of the course, together with more technical details. For the oral exam, the link will allow anyone (not only students registered for the exam) to join the conference and attend the exams.

Office hours

From Monday to Friday at any working hour (an appointment should be asked for by email).
