



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Chimica Fisica II

2021-2-E2702Q089-E2702Q090M

Aims

Contents

Chemical kinetics: Study of the rates of chemical reactions and rate laws. Reaction mechanisms. Temperature dependence. Catalysis.

Quantum chemistry: Introduction to quantum-mechanics. Applications of quantum chemistry to model systems, atoms and molecules.

Detailed program

Chemical kinetics:

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Quantum chemistry:

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Prerequisites

Knowledge of general, inorganic and organic chemistry. Basic knowledge of mathematics.

There are no imposed propaedeutics, but it is recommended to have passed the first-year exams and the Physical Chemistry I exam.

Teaching form

Lessons, 7 credits

Exercises, 2 credits

In the Covid-19 emergency period, lessons and exercises will take place remotely asynchronously with synchronous videoconferencing events.

Textbook and teaching resource

In the e-learning page of the course are provided: the slides presented during the lessons; some exercises with solutions for individual preparation for the written exam.

Recommended text:th ..

Semester

Second semester

Assessment method

The assessment of the Physical Chemistry II module consists in a written and an oral examinations. The two examinations can be taken separately.

The written examination concerns the solution of problems regarding the Chemical Kinetics and has the objective of verifying the acquired knowledge, the ability to apply this knowledge to the solution of problems, and the ability of judgement. It is evaluated with one of the following judgements: optimum, good, fairly good, sufficient, not admitted. The student who obtains sufficient or an higher evaluation is admitted to the oral examination. The written examination is valid for 6 months. **The oral examination** includes a brief discussion on the written test and an interview on all the topics covered in class (Kinetics and foundations of Quantum Chemistry). It aims to verify the knowledge and understanding of the exam program and the communication skills. During the Covid-19 emergency period, both tests can be carried out using the WebEx platform and a public link will be provided on the teaching e-learning page for access to the examination of possible virtual spectators. The mark range (18-30/30) is obtained by integrating the evaluations of the written and oral examinations.

Office hours

Students reception in the office after e-mail appointment.
