



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Laboratorio di Chimica Fisica II

2122-2-E2702Q089-E2702Q091M

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#### Aims

To integrate the learning of thermodynamics and kinetics

#### Contents

The course is based on the execution of physical chemistry experiments, which provide manual skills and methodologies useful for deepening learning of thermodynamic and kinetic arguments.

#### Detailed program

Laboratory experiments: Calorimetric measurements of phase transitions. Heat combustion determination by calorimetric bomb. Rate law determination. Determination of kinetic reaction parameters by conductimetric methods and UV-vis spectroscopy. Determination of thermodynamic reaction parameters by UV-vis spectroscopy.

#### Prerequisites

Basic knowledge of thermodynamics and kinetics. Basic knowledge of mathematics

#### Teaching form

Laboratory activities and exercises in computer classroom

## **Textbook and teaching resource**

Lecture notes

## **Semester**

2nd semester

## **Assessment method**

Oral examination supported by the analysis of a laboratory report prepared in advance by the student. Questions will regard the discussion of experimental techniques in the following fields:

- calorimetric measurements of phase transitions
- heat combustion determination by calorimetric bomb
- rate law determination and determination of kinetic reaction parameters
- determination of thermodynamic reaction parameters by UV-vis spectroscopy.

The underlying theoretical principles are also object of the oral examination.

## **Office hours**

On appointment (by email request)

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