

## COURSE SYLLABUS

### **Smart materials, from molecular switches to motors**

**2526-116R-M12**

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#### **Aims**

The focus of the lectures is on molecular nanoscience, novel responsive materials, molecular switches and motors, inspired by Nature's principles of molecular assembly, recognition, transport, motion and catalysis. A second part of the program deals with the principle to fabricate porous architectures endowed with molecular dynamics in the solid state and on command gas capture and release by chemical and physical stimuli.

#### **Contents**

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#### **Detailed program**

Module A: Porous Materials as a valid platform to promote ultrafast dynamics and functional properties in the solid state

Module B: From molecular switches to motors

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## **Prerequisites**

## **Teaching form**

Module A requires 4 hours of frontal teaching.  
Module B requires 4 hours of frontal teaching

## **Textbook and teaching resource**

Slides

## **Semester**

Last week of November 2025, first week of December 2025

## **Assessment method**

Brief report on a specific topics assigned by the teacher

## **Office hours**

Write an email to [angiolina.comotti@unimib.it](mailto:angiolina.comotti@unimib.it)

## **Sustainable Development Goals**

QUALITY EDUCATION

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