



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Fisica III

2122-2-E3001Q043

Aims

Illustrations of phenomena that show the inadequacy of classical physics theories for their description and formulation of new models that introduce the students to the first concept leading to quantum physics.

Contents

- _____
- _____
- **Atomic models:** _____
- _____
- _____

Detailed program

1. _____
2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

Prerequisites

The contents of the maths and physics courses of the first three semesters of the Bachelor degree in Physics and Mathematics.

Teaching form

Lectures.

Textbook and teaching resource

Selected chapters in the following texts and lecturer's notes.

TIPLER "Modern Physics"

- _____
- _____

BARROW "Chimica fisica"

- _____

ENGE-WEHR-RICHARDS "Introduction to Atomic Physics"

- _____
- _____

DEKKER – “Solid State Physics”

- _____

SERWAY-MOSES-MOYER “Modern Physics”

- ____

RICHTMYER-KENNARD-COOPER “Modern Physics”

- ____

EISBERG-RESNICK “Quantum Physics”

- _____

ALONSO – FINN “III-Quantum and statistical physics”

- _____

Semester

II semester.

Assessment method

The assessment is reached through a written exam that last three hours, with open questions (4/5) in which the student is requested to expose a topic of the program with small derivations, graphs and, if needed some numerical estimates. The use of a scientific calculator is requested. Access to textbooks during the exam is strictly forbidden. The exam score is expressed in 30 points units.

The student succeeded in a positive written exam ($\geq 18/30$) can perform an optional oral exam or keep the rating obtained in the written one.

Those students that have been rated 16/30 and 17/30 in the written exam access the oral exam in order to obtain a final score $\geq 18/30$.

Office hours

By appointment.

