



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Epitaxial Semiconductor Nanostructures: Materials Science and Devices

2425-116R-M06

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#### Title

Epitaxial semiconductor nanostructures: Materials science and devices

#### Teacher(s)

Prof. Stefano Sanguinetti

#### Language

English

#### Short description

The course will introduce the details of epitaxial growth techniques and thin-film characterization for the fabrication of semiconductor nanostructures. Direct nanostructure growth, optoelectronic devices, and their integration will also be covered during the course.

In particular:

- Substrate fabrication and characterization

- Introduction to epitaxy
- Epitaxy of semiconductors
- Major growth techniques (MOVPE, MBE, LPE)
- Epitaxy of Semiconductor Quantum Dots by Droplet Epitaxy

## **CFU / Hours**

1 CFU/8 hours

## **Teaching period**

March 17th/ March 25th

## **Sustainable Development Goals**

INDUSTRY, INNOVATION AND INFRASTRUCTURE

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