UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Epitaxial Semiconductor Nanostructures: Materials Science and Devices

2425-116R-M06

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