



(scheda provvisoria)

Codice: 0005B

Titolo: 3D AND 4D NANOMATERIALS AND DEVICES

SSD: FIS/03

**Erogazione:** Secondo semestre

Crediti: 9CFU

**Titolare:** 

Nuovo insegnamento.

**Objective**. Main topics and knowledge targeted: Physical principles and experimental methods for realizing and characterizing intelligent materials. Stimuli-responsive properties (structure, optical, transport). Three-dimensional fabrication at multiple length scales. Organics, molecular materials. Nanocomposites. Shape-memory systems. Liquid crystal elastomers. Photochromic and thermochromic materials. Relevant physical processes and technologies: polymerization processes, multiphoton processes, nanolithography, material extrusion and jetting, additive nano-manufacturing.