



PERSONA CIENCIA EMPRESA  
UNIVERSITAT RAMON LLULL

## NANOTECHNOLOGY

**Credits:** 4 ECTS (2 US Credits)

**Duration:** 30 hours

**Course:** Summer Program 2017

**Professor:** Dr. Salvador Borrós [salvador.borros@iqs.url.edu](mailto:salvador.borros@iqs.url.edu)

### PROGRAM

#### FUNDAMENTS OF NANOTECHNOLOGY

- S1 Introduction to Nanotechnology
- S2 Size matters in Nanotechnology: is it enough to be smaller?
- S3 Limitation of Nanotechnology

#### PRACTICAL APPLICATIONS

- S4 Scanning Probe Microscope as a basic tool for the development of Nanotechnology
- S5 Nanotechnology in classic materials
- S6 Nanoscience and Nanotechnology in energetics
- S7 Nanoscience and Nanotechnology in polymers science
- S8 Nanoscience and Nanotechnology in surface engineering
- S9 Nanoscience and Nanotechnology in medicine

#### LABORATORY

- P1 Nanomaterial characterization in DLS and Nanotracking Analysis
- P2 Use of Zeta potential in nanoparticles control
- P3 Introduction to Scanning Probe Microscope
- P4 Quartz crystal microbalance as a tool for nanomaterials development
- P5 Rheologic characterization for nanocomposite design