UNIVERSITÀ DI PAVIA

Anno Accademico 2014/2015

BIOMATERIALS - MOD. A

Enrollment year	2014/2015
Academic year	2014/2015
Regulations	DM270
Academic discipline	CHIM/02 (PHYSICAL CHEMISTRY)
Department	DEPARTMENT OF ELECTRICAL,COMPUTER AND BIOMEDICAL ENGINEERING
Course	BIOENGINEERING
Curriculum	BIOINGEGNERIA DELLE CELLULE E DEI TESSUTI
Year of study	1°
Period	2nd semester (02/03/2015 - 12/06/2015)
ECTS	3
Lesson hours	23 lesson hours
Language	ITALIAN
Activity type	ORAL TEST
Teacher	MUSTARELLI PIERCARLO (titolare) - 3 ECTS BINI MARCELLA - 3 ECTS
Prerequisites	=
Learning outcomes	=
Course contents	Modulo 1. Definition of biomaterials and biocompatibility. Some information on the chemical bond, the definition of solid state and classification of the main classes of solids and their major defects. Main techniques for the study of surfaces of biomaterials (spectroscopic, thermal and microscopic techniques and contact angle measurements). Techniques for surface modification of biomaterials (silanization, chemical reactions, plasma or laser techniques, self-assembled monolayers or Langmuir-Blodgett films, etc.). Module 2. Polymeric materials, ceramic materials, metal materials, (nano) composites materials.

Teaching methods	=
Reccomended or required readings	=
Assessment methods	=
Further information	=
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile