



## MATERIALS' CHARACTERIZATION TECHNIQUES

Enrollment year	2018/2019
Academic year	2018/2019
Regulations	DM270
Academic discipline	CHIM/02 (PHYSICAL CHEMISTRY)
Department	DEPARTMENT OF CHEMISTRY
Course	CHEMISTRY
Curriculum	PERCORSO COMUNE
Year of study	1°
Period	2nd semester (01/03/2019 - 20/06/2019)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	BINI MARCELLA (titolare) - 3 ECTS QUARTARONE ELIANA - 3 ECTS
Prerequisites	To better understand the lesson topics, physics and inorganic and physical chemistry basic notions are required
Learning outcomes	At the end of the course the students must know the main microscopic, spectroscopic and thermal techniques and their application fields
Course contents	Module 1 - Adsorption phenomenon, main isotherms and their classification; thermal techniques (thermogravimetry TGA, differential thermal analysis DTA, differential scanning calorimetry DSC, DMA and TMA with application in food industry); scanning electron microscopy (SEM and forensic analysis application); electronic microanalysis (EDS and WDX)
Teaching methods	The course is based on frontal lessons. No tutoring is present and any minimum of frequency is required.

<b>Reccomended or required readings</b>	The material fro the exam preparation is provided by the teachers
<b>Assessment methods</b>	The assessment of skills will be based on an oral examination to verify the ability to differentiate the techniques explained during the lessons
<b>Further information</b>	
<b>Sustainable development goals - Agenda 2030</b>	<a href="#">\$ibl legenda sviluppo sostenibile</a>