

# DIAGNOSTICS FOR CULTURAL HERITAGE (LM61)

( - Università degli Studi)

## Insegnamento PHYSICAL CHEMISTRY FOR CULTURAL HERITAGE

GenCod A005454

**Insegnamento** PHYSICAL CHEMISTRY FOR CULTURAL HERITAGE

**Insegnamento in inglese** PHYSICAL CHEMISTRY FOR CULTURAL HERITAGE

**Settore disciplinare** CHIM/02

**Corso di studi di riferimento** DIAGNOSTICS FOR CULTURAL

**Tipo corso di studi** Laurea Magistrale

**Crediti** 9.0

**Ripartizione oraria** Ore Attività frontale: 63.0

**Per immatricolati nel** 2018/2019

**Erogato nel** 2018/2019

**Anno di corso** 1

**Lingua** INGLESE

**Percorso** PERCORSO COMUNE

**Docente** Gabriele GIANCANE

**Sede**

**Periodo** Primo Semestre

**Tipo esame** Orale

**Valutazione** Voto Finale

**Orario dell'insegnamento**

<https://easyroom.unisalento.it/Orario>

### PREREQUISITI

Basic concepts of chemistry and physics.

### OBIETTIVI FORMATIVI

Diagnostic techniques used to characterize the material components of historically relevant artifacts and the processes that rule the degradation of the materials will be systematically analysed and explained. In particular, not destructive spectroscopic methodologies will be proposed to the students.

During the course, the students will be involved in the study of scientific papers that will be critically analysed highlighting strength and weakness of the proposed researches in order to educate the student to face complex problems and to solve them with powerful analytical methods.

### METODI DIDATTICI

Frontal lessons will be given. Course attendance is compulsory.

### MODALITA' D'ESAME

Oral tests will be used to evaluate if the students reached the course's objectives

### APPELLI D'ESAME

**29 gennaio 2019**

**14 febbraio 2019**

**28 febbraio 2019**

**2 maggio 2019**

**13 giugno 2019**

**9 luglio 2019**

**31 luglio 2019.**

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## PROGRAMMA ESTESO

During the course, concepts of Physical Chemistry will be proposed and particular attention will be paid towards the study of the degradation processes that affect the historical artifacts and monuments.

Possible strategies to prevent the effects of external agents on different materials will be examined and the analytical techniques used to characterize them will be considered. Furthermore, chemical physical approaches applied to real cases will be discussed and possible improvements of the

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## TESTI DI RIFERIMENTO

- AA. VV., La Chimica per l'Arte, Zanichelli.
- Conservation Science for the Cultural Heritage, Applications of Instrumental Analysis, Editor: Varella, Evangelia A.; Springer
- Zecchina, Alchimie nell'arte, Zanichelli
- Science and Art: The Painted Surface Editors: Antonio Sgamellotti, Brunetto Giovanni Brunetti, Costanza Miliani, RSC.
- Ted Lister, Conservation Chemistry, An Introduction; Royal Society of Chemistry.
- M.R. Derrick et al., Infrared Spectroscopy in Conservation Science, Publisher: Getty Trust Publications.
- C. Wayne Smith, Archaeological Conservation Using Polymers, Practical Applications for Organic Artifact Stabilization, Texas A & M University Press
- G. Artioli, Scientific Methods and Cultural Heritage, An Introduction to the Application of Materials Science to Archaeometry and Conservation Science, Oxford University Press