



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Culture e società
ACADEMIC YEAR	2022/2023
MASTER'S DEGREE (MSC)	ARCHAEOLOGY
SUBJECT	3D MODELLING WORKSHOP
TYPE OF EDUCATIONAL ACTIVITY	F
AMBIT	21171-Abilità informatiche e telematiche
CODE	21292
SCIENTIFIC SECTOR(S)	
HEAD PROFESSOR(S)	LIMONCELLI MASSIMO Ricercatore a tempo determinato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	2
INDIVIDUAL STUDY (Hrs)	30
COURSE ACTIVITY (Hrs)	20
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Pass/Fail
TEACHER OFFICE HOURS	LIMONCELLI MASSIMO Monday 09:30 12:30 Viale delle Scienze, Edificio 15, stanza 104bis

DOCENTE: Prof. MASSIMO LIMONCELLI

PREREQUISITES	Basic knowledge of archaeological discipline and related methods. Basic knowledge of computer science applied to cultural heritage.
LEARNING OUTCOMES	Knowledge and understanding Knowledge of field and laboratory research tools and methods; knowledge of the main applications IT in the relevant area: additional language skills; knowledge of specific areas and problems of working context Ability to apply knowledge and understanding Ability to correctly use research methods and tools on finds e artifacts or in the field activities, in museum environment, etc. Ability to operate in an inherent working context the sphere of cultural heritage and cultural tourism.
ASSESSMENT METHODS	final practice exercise at the end of the activity- aims to verify and evaluate the degree of achievement of the learning outcomes of the course, according to the following grid: level of knowledges and competences barely adequate- sufficient level adequate, but with failures- good level satisfactory, with a few flaws- very good level fully satisfactory- excellent
EDUCATIONAL OBJECTIVES	The activities could be laboratories, archaeological excavations, survey, practical activities (even stage), seminar lessons with an active engagement of the students. The students will gain competences and abilities in the use of the means and methods current in the fieldwork and laboratory, and/or in the main
TEACHING METHODS	Frontal lessons, practice (mandatory)
SUGGESTED BIBLIOGRAPHY	M. Limoncelli, Il restauro Virtuale in Archeologia, Carocci, Roma 2012, ISBN 9788843062225

SYLLABUS

Hrs	Workshops
30	The laboratory will focus on practical activities related to digital modeling techniques applied to the reconstructive study of ancient monuments. In particular, all the modeling techniques used today will be illustrated: primitive modeling, Polygonal modeling, NURBS modeling, modeling, subdivision surface, 3D sculpting. During the laboratory, each student will create a reconstructive model of an ancient monument following all the single steps envisaged in a virtual restoration work: reconstruction of volumes (modeling), restitution of colors (Texturing), simulation of light (Global Illumination) up to Bitmap image processing (rendering), also in stereoscopy. Therefore, at the end of the course each student will be able to create a digital 3D model of an ancient monument, according to the principles, methods and rules of the discipline of Virtual Archeology.