General Information	
Academic subject	Digital Systems for Masonry Analysis
Degree course	2021-2022
Curriculum	LM- Archeologia
ECTS credits	3
Compulsory attendance	No
Language	Italiano

Subject teacher	Name Surname	Mail address	SSD
	Nunzia Maria Mangialardi	nunzia.mangialardi@unifg.it	L/Ant-10

ECTS credits details	Subject Area	SSD	Credits
Basic teaching activities	IT Laboratory for Archeological Heritage	L-ANT/10	3

Class schedule	
Period	II semester
Year	I and II
Type of class	Lectures Workshops Laboratories

Time management	
Hours measured	75
In-class study hours	21
Out-of-class study hours	54

Academic calendar	
Class begins	February 21, 2022
Class ends	May 20, 2022

Syllabus	
Prerequisites/requirements	
Expected learning outcomes (according to Dublin Descriptors) (it is recommended that they are congruent with the learning outcomes contained in A4a, A4b, A4c tables of the SUA-CdS)	Basic computer skills: drawing and computing software Basic knowledge of working tools for Architectural Archeology: knowledge of basic elements of Stratigraphic Masonry Unit, Construction Technique, Track of processing, Dimensional Analysis of Building Elements (...). **Knowledge and understanding** The course aims to provide useful knowledge to understand and use IT tools to support the analysis of historical masonry in order to facilitate, speed up and enhance the methods of distinguishing building characters, of statistical calculation of the dimensional aspects of construction elements, of reading of the morphology of the masonry and its chronological indicators. **Applying knowledge and understanding** Students will be able to apply primary operating methods and

	IT tools in order to analyze historical mansory. By doing exercises, students can verify directly their own level of understanding and managing digital techniques, supporting mansory reading and its chronological indicators (processing, dimension, materials…).

Autonomy of judgement
Students will be able to correlate critically IT tools during laboratories in order to realize a quick and more effective analysis of archeological-architectural data that will be found.

Communication Skills
Direct experimentation of the methods of reading historical masonry and IT tools for the acquisition and the process of archaeological-architectural data will be carried out in order to ensure the mastery of a technical language and an adequate specialized terminology. Both oral and graphic communication skills will also be stimulated by the approach of teaching.

Learning Skills
Direct exercise of IT tools for the processing of the identified and detected archaeological-architectural records will allow students to directly learn, in a digital environment, methods in order to develop their application skills and archaeological knowledge of the architectural artefact |
Contents	The laboratory will focus mainly on developing skills on methodologies related to digital acquisition, reworking and processing of archaeological-architectural records for the analysis of historic buildings and historical built landscapes. The course aims to offer an overview of digital tools able to guarantee a methodological approach that will investigate the architectural characteristics of the building or artifacts, in the original phase of their construction and in the following transformations that took place over time. Final goal will be the acquisition of the ability to identify morphology of the constructive characters of architectural artifacts.
Course program	
Bibliography	Bibliography and webgraphy will be provided during the course. Any not attending students must agree exam program with teacher. These are text books: ☐ MEDRI M. 2005, Manuale di rilievo archeologico, Laterza Roma-Bari. ☐ BROGIOLO G.P., CAGNANA A. 2012, Archeologia dell'Architettura Metodi e Interpretazioni, Firenze.
Notes	Any other books will be specified by Teacher during lessons
Teaching methods	The course will be divided into theoretical-practical lectures consisting of exercises and laboratory activities, possibly integrated with practice exercises
Assessment methods (indicate at least the type written, oral, other)	The test consists of an oral exam at the end of the course (with an average duration of 20/25 min.) In consideration of the theoretical-practical nature of the course, the verification of learning will already take place

	during the laboratory sessions and seminars. Students will prepare a final paper, agreeing it with the teacher. The discussion of the year's theme, together with the discussion of the issues raised during the course, will be an integral part of the end-of-course evaluation
Evaluation criteria ([Explain for each expected learning outcome what a student has to know, or is able to do, and how many levels of achievement there are.](#))	**Knowledge and understanding** Knowledge of digital tools used in the field of Architecture Archeology for the archeological reading and interpretation of buildings artifacts Ability to manage archeological filing of historical buildings **Applying knowledge and understanding** Use of tools for the analysis of wall structure indicators: Filing of Stratigraphic and Architectural Units; Stratigraphic analysis and reconstruction of a relative chronology; Mensiochronology (…). Prerequisites acquisition for data processing to be able to deal with: Classification of construction techniques and materials; Acquisition and photogrammetric and graphic processing. Self-check and on-going evaluation during laboratory exercises. **Autonomy of judgement** Critical reworking of content; Proper use of tools and methods; Proper and integrated use of IT tools **Communication Skills** Understand and describe, using a proper technical language, the characteristics of the archeological-architectural records through IT tools **Learning Skills** Demonstrate of critical managing the IT tools covered by the laboratory and the domain skills of Architectural Archeology
Other elements	**The exam calendar** will be published on the notice boards of the Degree Course and will be available on the website of Degree Course. To enroll for the examination, you need to book through the Esse3 system and fill out the questionnaire on student's opinions. Days of reception: The teacher receives by appointment (e-mail nunzia.mangialardi@unifg.it). The teacher is available to students for any clarifications relating to the topics proposed during the class and related to the methods of exam preparation. Useful web sites: On the website of the Department of Humanities it is possible to find information about seminars, conferences, archaeological fieldworks (excavation and surface reconnaissance campaigns) and research activities related to teaching.

	Reception hours may vary. Students are kindly requested to check notices and any timetable changes on the teacher's page.