## **Computer workshop applied to archaeology**

## Prof. Claudio Cortese

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

It is now well established that the amount of data produced by modern archaeological investigations cannot be adequately managed without the use of a tool such as the relational database. Less widespread, however, is the awareness that, in order to fully exploit its potential, the design and creation of this tool must follow a precise procedure in order to structure the data according to a logical model to prevent problems in managing the developed application. Therefore, the course focuses on all the steps required to create digital archives for managing archaeological data, starting from their conceptual and logical design, right up to their actual implementation. This is done through theoretical and practical lectures and the illustration of case studies.

By the end of the course, students will know the main features of the relational model. They will be able to carry out autonomously the different phases of the conceptual and logical design of a database, and to structure it using LibreOffice Base or OpenOffice Base software. Moreover, they will be able to carry out simple data analysis operations, using the user interface provided by the software.

***COURSE CONTENT***

The following topics are dealt with as part of the course.

1. Relational databases fundamental concepts.

2. Conceptual and logical design of a relational database.

3. Implementation of a relational database.

***READING LIST***

P. Atzeni-S. Ceri-P. Fraternali-S. Paraboschi-R. Torlone, *Basi di dati,* Milan, 2018 (only chapters 1, 2, 6, 7, 8, 9).

V. Fronza, *L'archiviazione del dato in archeologia,* in *Informatica e Archeologia Medievale. L'esperienza senese*, V. Fronza-A. Nardini-M. Valenti (edited by), Florence, 2009 (Metodi e Temi dell'archeologia medievale), pp. 29-43.

M. Valenti, *Una via archeologica all'informatica (non una via informatica all'archeologia)*, in *Informatica e Archeologia Medievale. L'esperienza senese*, V. Fronza-A. Nardini-M. Valenti (edited by), Florence, 2009 (Metodi e Temi dell'archeologia medievale), pp. 7-28.

***TEACHING METHOD***

Lectures and exercises in the computer laboratory.

***ASSESSMENT METHOD AND CRITERIA***

During the exam students should illustrate the relational database they have structured. They will also discuss contents explained during the lessons and covered in the texts on the reading list.

When presenting their database, students must demonstrate that they understand the theoretical concepts explained in lectures and illustrated further in the texts on the reading list; that they can explain the design choices they made and use the LibreOffice Base or OpenOffice Base software correctly.

The database must be sent to the lecturer by email (*cortecla016@gmail.com*) at least two weeks before the exam date.

***NOTES AND PREREQUISITES***

Students are expected to be familiar with archaeological excavation techniques and archaeological material cataloguing.

Any students unable to attend lectures should contact the lecturer in good time to agree on the exam syllabus.

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG or on the Faculty notice board.

*Time and place of reception of students*

Prof. Claudio Cortese receives students before or after class by appointment