

## SUBJECT TEACHING GUIDE

### 219 - Dating Methods and spatial archaeology

#### Master's Degree in Prehistory and Archaeology

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Master's Degree in Prehistory and Archaeology			Type and Year	Compulsory. Year 1
Faculty	Faculty of Humanities				
Discipline	Obligatory Subjects				
Course unit title and code	219 - Dating Methods and spatial archaeology				
Number of ECTS credits allocated	3	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. CIENCIAS HISTORICAS				
Name of lecturer	PABLO ARIAS CABAL				
E-mail	pablo.arias@unican.es				
Office	Edificio Interfacultativo. Planta: + 1. DESPACHO PROFESORES (146)				
Other lecturers	MARCO ADOLFO VIDAL CORDASCO				

3.1 LEARNING OUTCOMES
- Acquisition of the fundamentals of the dating techniques used in Archaeology
- Knowledge of the basic resources for the spatial analysis in Archeology
- Capacity for planning dating programs in Archaeological projects
- Acquisition of the basic tools for the spatial analysis in Archaeology

#### 4. OBJECTIVES

Train the student in the critical use of the dating methods

Introduce the students to the methods of Spatial Archaeology

#### 6. SUBJECT PROGRAM

##### CONTENTS

1	Dating methods in Archaeology 1.1. General view of the dating methods 1.2. Method derived from Geological processes 1.3. Methods derived from Biological phenomena 1.4. U Series and related methods 1.5. Radiocarbon 1.6. Calibration of the Radiocarbon determinations 1.7. Statistical processing and graphic representation of dates
2	Spatial Archaeology 2.1. Introduction: the Archaeological space in the understanding of the historical process 2.2. Scales of analysis: From microspace to territory 2.3. Methods of qualitative and quantitative analysis
3	1. Datation methods in Archaeology 2. Spatial Archaeology

#### 7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Statistical analysis and graphic representation of a group of dates	Work	No	Yes	50,00
Development of a practical exercise of spatial analysis	Work	No	Yes	50,00
<b>TOTAL</b>				<b>100,00</b>
Observations				
Observations for part-time students				

## 8. BIBLIOGRAPHY AND TEACHING MATERIALS

### BASIC

- AITKEN, M.J., 1990. *Science-based Dating in Archaeology*. London: Longman.
- BLANKHOLM, H.P. (1991). *Intrasite Spatial Analysis in Theory and Practice*. Aarhus University Press.
- BOWMAN, S., 1990. *Radiocarbon Dating*. London: British Museum Publications.
- BRONK RAMSEY, C. 2009, "Bayesian analysis of radiocarbon dates", *Radiocarbon*, vol. 51, no. 1, pp. 337-360.
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- LIBBY, W.F., 1970. *Datación radiocarbónica*. Barcelona: Labor.
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- VAN STRYDONCK, M., NELSON, D.E., CROMBÉ, P., BRONK RAMSEY, C., SCOTT, E.M., VAN DER PLICHT, J. & HEDGES, R.E.M. 1999, "What's in a 14C date" in 3ème Congrès International 14C et Archéologie. Lyon 6-10 avril 1998, eds. J. Evin, C. Oberlin, J. Daugas & J. Salles, Société Préhistorique Française (Mémoire XXVI)-Groupe des Méthodes Pluridisciplinaires Contribuant à l'Archéologie (G.M.P.C.A.), Rennes, pp. 433-448.
- VAQUERO, M. (2013) *Análisis micro-espacial: áreas domésticas, variabilidad funcional y patrones temporales*. En García, M y Zapata, L. (ed.) *Métodos y técnicas de análisis y estudio en arqueología prehistórica: De lo técnico a la reconstrucción de los grupos humanos*, pp. 245-271. Universidad del País Vasco.
- WHEATLEY, D. y GILLINGS, M. (2002): *Spatial Technology and Archaeology: a Guide to the Archaeological Applications of GIS*. Taylor & Francis. London.
- ZAMORA, M. y BAENA, J. (2010) *Los SIG en la arqueología española: una valoración 'CAA' del contexto actual*. *Cuadernos de Prehistoria y Arqueología de la Universidad de Granada* 20, 49-64.