



The University of Jordan

Faculty: Archaeology & Tourism
Department: Cultural Resources Management and Conservation
Semester: Second Semester
Academic Year: 2015/2016
Course Name: Deterioration of Archaeological Materials
Credit hours: 3 hours
Elective or Compulsory requirement course: Compulsory requirement

Course Description

This course defines and describes the physical and chemical characteristics of organic and non-organic materials constituting, generally, archaeological objects. In addition, the course explains the internal and external factors of deterioration affecting different archaeological artifacts, and how the deterioration processes took place.

Learning Objectives

The main objective of this course is to develop the capacities of students in analysing and interpreting enable students to understand:

1. Understand the behavior and effects of moisture in historic stone buildings and monuments.
2. Be able to identify moisture problems and typical sources of moisture.
3. Become familiar with techniques and instrumentation used in the diagnosis of moisture problems.
4. .

Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding: Student is expected to

A1- Show a better understanding of his surrounding environments.

A2- Learn the basic principles and concepts of the different sciences involved in the domain of the Environmental Archaeology.

A3- Learn how to determine the different environmental agents and to explain their processes.

A4- Understand the specificity of the relationship between archaeology and the environment.

B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1- Know how to build the causal relation between factors and effects.

B2- Handling different work area.

B3- Determine the past environment(s) of a given site.



Learning and Evaluation Methods

ILO/s	Learning Methods	Evaluation Methods
	Lectures, presentations, laboratory demonstrations and discussions.	Exams, presentations of individual or group works.

Course Contents

Content	Week	ILO/s
Archaeological materials: Types, resources and elemental compositions	Week 1 -3	Lectures, PowerPoint presentations, discussion and museum trips
Preparation / fabrication of archaeological materials and the transformation of the primary elements.	Week 4 and 5	Lectures, PowerPoint presentations and discussion
Factors of deterioration	Week 6 -8	Lectures, PowerPoint presentations and discussion
Types and processes of deterioration	Week 9-11	Lectures, lab demonstration and discussion
Techniques used in the analysis and diagnosis of the deterioration symptoms and causes	Week 12 and 13	Lectures, lab demonstration and discussion
Methods and techniques used in the elimination or reduction of the deterioration factors/causes	Week 14	Lectures, lab demonstration and discussion

*some adjustments could happen according to the weeks due to the exams and other academic activities.

Evaluation



Evaluation	Point %	Date
Midterm Exam	30	Around April 1 st
Individual / group work presentations	15	Week of 19-24 April
Participation	5	
Final Exam	50	In May

Main References:

- 1-Pollard M., Batt C., Stern B., Young, S. M. M. 2007: Analytical Chemistry in Archaeology. Cambridge University Press. New York..
- 2-Robert L. Feller. 1994: Accelerated aging : photochemical and thermal aspects. Getty Conservation Institute. Cambridge University Press.
- 3-ICOMOS-ISCS : Illustrated glossary on stone deterioration patterns. Monuments and sites XV
- 4-Gilberto Artioli. 2010 : Scientific methods and Cultural Heritage. Oxford University Press
- 5-Other references (in French and English) available upon request.

Course Teacher

Head of the Department

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Dr. Fuad Hourani

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Dr. Maysoon Alnahar