

## Courses Description

**College:** Queen Rania'S Faculty Of Tourism& Heritage

**Department:** Archaeological Conservation Science

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**Couse ID:** 903111      **Description:** Principles of Conservation Science

**Full Course Description:** Examines of the concept, nature, history, and main principles of conservation science. It also discusses practical, professional and ethical issues related to conservation work. It differentiates between a group of terms related to conservation works such as restoration, preservation, reconstruction and conservation. It focuses on the role of conservation in related disciplines. It will also introduce the main charters and legislation that deal control the conservation work. It also introduces the different levels of conservation work. It covers also the nature, causes of deterioration and main conservation methods of archaeological materials.

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**Couse ID:** 903161      **Description:** Ancient Architecture (I)

**Full Course Description:** The course provide the understanding of the architecture of the ancient world (prehistoric, Egyptian, Mesopotamian, Greek, Hellenistic, and Roman). The study considers the influences, which shaped each type of architecture, in relation to aspects of social, religious, political, as well as building materials, climate and geography, the influences of the earliest architecture to the later one according to the function, morphology, structure, and symbolism. Concentration will be focused on the ancient architecture of Jordan.

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**Couse ID:** 903201      **Description:** Geoarchology

**Full Course Description:** Lecture/laboratory course illustrating the use of geological concepts and methods in the study of archaeological problems. It give the fundamentals of geologic context and archaeology and the different geophysical and geochemical methods, involved in weathering, soil and cultural deposits and site formation, sedimentary environments and depositional processes for conservation. Landscape studies and records alteration; prospection, or the non-destructive methods for locating cultural remains; provenance (sourcing) of raw materials.

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**Couse ID:** 903211      **Description:** Properties of Archaeological Materials

**Full Course Description:** Introducing the different kinds of archaeological materials and it's classification regarding their raw materials. Also focuses on studying the physical and chemical properties of the archaeological materials and explains the effect of the surrounding environment on materials nature. The practical part will includes different ways in examine and studying theses properties in the laboratory.

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**Couse ID:** 903214      **Description:** Conservation Science and Tourism Development

**Full Course Description:** Cover the main positive and negative impacts of the tourism activities in the archaeological site such as it stability and continuity. It also will cover the role of the tourist guide in the conservation process in the site. The course will extend to cover the impact of different conservation work in the tourism and tourism development.

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**Couse ID:** 903222      **Description:** Dating and Survey Techniques in Archaeology

**Full Course Description:** Discussion of the most common dating and surveying techniques used or found in related archaeological literature. Also discusses its history, types, site and sample suitability, the discovery and mapping of buried archaeological features, and computer analysis of data. Practical experience of some of the techniques on the lab and field, putting to use the information discussed in class.

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**Couse ID:** 903261      **Description:** Ancient Architecture (II)

**Full Course Description:** Provide the students with an understanding of Early Christian, Byzantine, Architecture, Gothic, Renaissance, Baroque and Rococo, Neo Classical and Islamic Architecture. The study considers the influences, which shaped each type of architecture, in relation to the social, religious, political aspects, as well as building materials, climate and geography and the influences of the earliest architecture to the later one. The different architectural characters and styles through examples of typical building will be discussed, in addition to comparative analysis of principal features.

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**Couse ID:** 903301      **Description:** Geoarchaeology

**Full Course Description:** Lecture/laboratory course illustrating the use of geological concepts and methods in the study of archaeological problems. It give the fundamentals of geologic context and archaeology and the different geophysical and geochemical methods, involved in weathering, soil and cultural deposits and site formation, sedimentary environments and depositional processes for conservation. Landscape studies and records alteration; prospection, or the non-destructive methods for locating cultural remains; provenance (sourcing) of raw materials.

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**Couse ID:** 903302      **Description:** Natural Disasters and Archaeology

**Full Course Description:** Introduction the theory and practice the different natural disasters such as floods, earthquakes, fires, volcanic eruptions and human conflicts which make archaeological sites at risk. Students completing the course will gain a sound understanding of these hazards and how archaeological site respond to them and how to undertake Environmental risk assessments (ERAs) which are to support decision-makers in risk

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**Couse ID:** 903312      **Description:** Conservation of Museum Objects

**Full Course Description:** Introduction to nature of museum collection, their classifications and storage. Focus on in the conservation principles of most common museum objects. Also consider the role of museum environmental conditions and their role in the conservation process in the museum. It will take in consideration the museum collection storages and the needed environment in these areas. The practical part will introduce the different conservation methods and techniques of the different archaeological materials that are existed in the museum collection.

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**Couse ID:** 903313      **Description:** Conservation of Inorganic Archaeological Materials

**Full Course Description:** Introduction to inorganic materials that are found in the archaeological and historical sites and in museums. This include glass, ceramic and different metal objects. Focus on the main conservation principles and procedures in conserving and restoring these materials as well as the main factors that affect these materials. Laboratory application for the theoretical principles and techniques of restoration and conservation of the inorganic archaeological materials.

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**Couse ID:** 903314      **Description:** Conservation of Organic Archaeological Materials

**Full Course Description:** Introduction to different types of archaeological organic materials and their archaeological classification. It also studies the different chemical and physical properties of these organic materials and the role of these properties in the decay process of such materials. The course will cover all different used methods in conservation and restoration of archaeological organic materials. Lab application of different methods of organic materials identification, analysis and conservation.

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**Couse ID:** 903315      **Description:** Conservation of Earthen Structures and Clayey Artifacts

**Full Course Description:** Deals with the earthen structures and clay artifacts. Explaining the main character of this manufactures, the physical and chemical characteristics of the clay minerals as building materials, fired brick-Terracotta-Porcelain. Studying the deterioration causes and features to define the policy and nature of interventions and treatment and restoration materials. Organizing field trips to different location in Jordan to study and analysis one site made with earth structure.

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**College:** Queen Rania'S Faculty Of Tourism& Heritage

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**Couse ID:** 903331      **Description:** Archaeometry

**Full Course Description:** Introduction Archaeometry, its definition, and its history. Also the course explains the different physical and chemical analytical methods and it's suitability to the archaeological materials. Also discuss the implications of analytical results, how they relate to archaeological context and how they may answer some specific historical questions. Practical applications of the theoretical concepts of Archaeometry, examination and analysis as well as data acquisition, processing and interpretation.

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**Couse ID:** 903332      **Description:** Archaeometry

**Full Course Description:** Introduction Archaeometry, its definition, and its history. Also the course explains the different physical and chemical analytical methods and it's suitability to the archaeological materials. Also discuss the implications of analytical results, how they relate to archaeological context and how they may answer some specific historical questions. Practical applications of the theoretical concepts of Archaeometry, examination and analysis as well as data acquisition, processing and interpretation.

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**Couse ID:** 903333      **Description:** Analysis of Archaeological Inorganic Materials

**Full Course Description:** Introduction to different kinds and characterization of inorganic archaeological materials using different analytical techniques. Also study the surrounding parameters which influence materials stabilization and data processing and interpretation. It will include the application of the different analytical methods on archaeological materials and data processing and interpretation in the Lab.

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**Couse ID:** 903341      **Description:** Graphics and Its Applications in Heritage

**Full Course Description:** Introduces the basic concepts and basic techniques of computer graphics (Visual Communication). Explains the importance of such various techniques for documentation of the historical and archaeological buildings and their structural features in order to studying, analyzing and protecting them either by restoration or by conservation. In this framework, several software will be used such as Auto CAD (2D- 3D), PhotoModeler and Photoshop. Application of the previous software in the Lab., in addition to the free hand drawing and the engineering drawings in order to simple construction and viewing problems.

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**Couse ID:** 903351      **Description:** Informatics and Archaeology

**Full Course Description:** Includes the basic concepts necessary for modeling, designing and implementing database systems in documenting, studying and analyzing the collected data. Curriculum content will focus on various topics such Internet Browsing, electronic publishing, digital archiving, the integration of Microsoft Access with the Web, and web design (HTML). In the laboratory, students will practically apply the theoretical part.

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**Couse ID:** 903352      **Description:** Remote Sensing in Archaeology

**Full Course Description:** Cover the basics and principles of remote sensing and the general characteristics of electromagnetic spectrum. It introduces the different types of Satellites and other instruments used in remote sensing which are applied in the discovery and conservation of cultural heritage site. The lab work covers the various techniques of image processing in remote sensing such as image classification as demonstrated by ERDAS IMAGINE 9.1 software to analyze and interpret satellite imagery for archaeology and conservation study.

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**Couse ID:** 903371      **Description:** Introduction to Ancient Technologies

**Full Course Description:** Deals with the inventions, the techniques and the organic and inorganic materials used in manufacturing the heritage product of the ancient civilizations either those used for construction of buildings or other artifacts. The objective is to find out the sources of the materials and to consider how and why the ancient craftsmen used them.

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**College:** Queen Rania'S Faculty Of Tourism& Heritage

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**Couse ID:** 903411      **Description:** Conservation Science (2)

**Full Course Description:** Introduction to inorganic materials that are found in the archaeological and historical sites and in museums. This include glass, ceramic and different metal objects. Focus on the main conservation principles and procedures in conserving and restoring these materials as well as the main factors that affect these materials. Laboratory application for the theoretical principles and techniques of restoration and conservation of the inorganic archaeological materials.

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**Couse ID:** 903412      **Description:** Conservation Science (3)

**Full Course Description:** Introduction the concept of stone buildings and its importance. It studies the types of building materials used in historic buildings and monuments and their role in the construction and conservation of archaeological sites and monuments. Also study the different agents of deterioration in the inorganic building materials. Also introduce to the main principles of conservation of stone building materials, including cleaning and consolidation methods. A series of practical exercises in the laboratory and in the field to study the properties of the building materials and the basic conservation methods used in stone buildings.

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**Couse ID:** 903414      **Description:** Preventive Conservation for Archaeological Site and Artifacts

**Full Course Description:** Introduce the student to preventive conservation work and its importance in the conservation process. It also examines ways of preventing deterioration of archaeological materials by control of their environment. It will include the application of preventive conservation measures before, during and after archaeological work such as the construction of shelters. It studies the role of site management as one type of preventive conservation measures in these sites.

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**Couse ID:** 903421      **Description:** Restoration of Archaeological Artifacts

**Full Course Description:** Introduction to nature of museum collection, their classifications and storage. Focus on in the conservation principles of most common museum objects. Also consider the role of museum environmental conditions and their role in the conservation process in the museum. It will take in consideration the museum collection storages and the needed environment in these areas. The practical part will introduce the different conservation methods and techniques of the different archaeological materials that are existed in the museum collection.

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**Couse ID:** 903432      **Description:** Study of Historical Buildings Stability

**Full Course Description:** Deals with studying the physical and mechanical properties of the historical building materials through exposing them to compressive and tensile forces. It will also discuss the mechanical properties of the soil, its types, and their bearing capacity through the study of the cracks and the failure of the external and internal walls. The technical solutions to the problems mentioned will be discussed. In order to choose the best solutions and restoration treatments the practical part will include lab tests to observe how building materials withstand static and dynamic forces.

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**Couse ID:** 903442      **Description:** Applications of Visual Communication in Heritage

**Full Course Description:** Introduces the basic concepts and basic techniques of computer graphics (Visual Communication). Explains the importance of such various techniques for documentation of the historical and archaeological buildings and their structural features in order to studying, analyzing and protecting them either by restoration or by conservation. In this framework, several software will be used such as Auto CAD (2D- 3D), PhotoModeler and Photoshop. Application of the previous software in the Lab., in addition to the free hand drawing and the engineering drawings in order to simple construction and viewing problems.

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**Couse ID:** 903443      **Description:** Digital Archaeology

**Full Course Description:** Defines the digital technologies and the software used in archaeology for 3D documentation, 3D Modeling and visualization. It will discuss digital survey and mapping instruments, digital video and digital photogrammetry (aerial or terrestrial), and laser scanning technique. Various applications of 3D documentation methods in the field. It describes the computer programs and features and properties of each program.

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**Couse ID:** 903444      **Description:** Evaluation and Rehabilitation of Heritage Sites

**Full Course Description:** Deals with evaluating the existing physical condition of buildings with understanding its aesthetic and functional values and its relation to the surrounding environment. This done to define the nature of intervention treatments to be used and draw the conservation policy that needs to be followed to save these buildings. This is done in order to connect buildings through giving a unified identity to historical sits. Field visits will be organized to give the students the chance to apply such evaluation and to learn more about how to deal with historical buildings on site.

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**Couse ID:** 903451      **Description:** Archaeological Information Systems

**Full Course Description:** Understanding of the different components, methods and concepts of the Geographic Information System (GIS) and its application in problems related to archaeological site, their preservation, and management and how GIS can offer additional digital tools for improved CRM. Students will be introduced to comprehensive analysis schemes GIS can provide for archaeology and CRM including but not limited to WebGIS, Spatial analyst and 3D modeling.

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**Couse ID:** 903452      **Description:** Documentation of Archaeological Sites

**Full Course Description:** Introduces the development and evolution of the different architectural and archaeological documentation methods and techniques, the process of preparing the different architectural and engineering documentation drawings. It also introduces the photography, photogrammetry and the other modern techniques in Documentation. Application of different documentation methods and techniques. The students will learn how to prepare the documentation work plan, within the general framework of conservation and cultural resources management.

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**Couse ID:** 903491      **Description:** Seminar

**Full Course Description:** Developing the students' abilities to use the right references from the different libraries and other sources. A special focus will be given to the right usage of specialized periodicals and publications. Work is expected to be carried out by the student with the instructor supervising the discussion and directing readings A major paper is required from every student. In addition, presentations of the paper and any other work are required from every student.

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**Couse ID:** 903492      **Description:** Fieldwork Training

**Full Course Description:** jji

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**Couse ID:** 903493      **Description:** Special Topics

**Full Course Description:** Formulate research project demonstrating principles and procedures used to recognize, state, solve, and write problems of archaeological importance. Requires formal seminar presentation of completed project and paper.

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**Couse ID:** 2903201      **Description:** Archaeology and Applied Sciences

**Full Course Description:** Introduces the history of interaction between science and archaeology and some of the pressing issues archaeology recognizes and deals with as an archaeological science. Stresses the natural science and engineering methods archaeologists use in tackling such problems and how those methods have become part of the archaeological tool kit. And how science aids to dating and interpretation of past environments; analysis of archaeological food residues; scientific examination of raw materials and artifacts; mortality, disease, and behavior as reconstructed from human remains.

## Courses Description

**College:** Queen Rania'S Faculty Of Tourism& Heritage

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**Couse ID:** 2903311      **Description:** Conservation and Restoration of Stone Buildings

**Full Course Description:** Introduction the concept of stone buildings and its importance. It studies the types of building materials used in historic buildings and monuments and their role in the construction and conservation of archaeological sites and monuments. Also study the different agents of deterioration in the inorganic building materials. Also introduce to the main principles of conservation of stone building materials, including cleaning and consolidation methods. A series of practical exercises in the laboratory and in the field to study the properties of the building materials and the basic conservation methods used in stone buildings.

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**Couse ID:** 2903411      **Description:** Ancient Environment and Site Formation Processes

**Full Course Description:** Provides the necessary practical, analytical and interpretative methods and theories of the study of the uses of landscape by humans and their relationship with the environment. Considering in detail geological, biological and anthropogenic depositional and post-depositional processes that result in formation of archaeological sites and the processes of preserving and modifying spatial patterns; quantitative and qualitative spatial techniques using archaeological data..

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**Couse ID:** 2903442      **Description:** Documentation of Archaeological Remains

**Full Course Description:** Introduces the development and evolution of the different architectural and archaeological documentation methods and techniques, the process of preparing the different architectural and engineering documentation drawings. It also introduces the photography, photogrammetry and the other modern techniques in Documentation. Application of different documentation methods and techniques. The students will learn how to prepare the documentation work plan, within the general framework of conservation and cultural resources management.

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**Couse ID:** 110903111      **Description:** Principles of Conservation Science

**Full Course Description:** jj

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**Couse ID:** 110903161      **Description:** Ancient Architecture (I)

**Full Course Description:** lk

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**Couse ID:** 110903201      **Description:** Archaeology and Applied Sciences

**Full Course Description:** ll

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**Couse ID:** 110903214      **Description:** Conservation Science and Tourism Development

**Full Course Description:** kk

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**Couse ID:** 110903222      **Description:** Dating and Survey Techniques in Archaeology

**Full Course Description:** ll

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**Couse ID:** 110903261      **Description:** Ancient Architecture (II)

**Full Course Description:** kk

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**Couse ID:** 110903301      **Description:** Geoarchaeology

**Full Course Description:** "

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**Couse ID:** 110903311      **Description:** Conservation and Restoration of Stone Buildings

**Full Course Description:** kk

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**Couse ID:** 110903312      **Description:** Conservation of Museum Objects

**Full Course Description:** "

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**Couse ID:** 110903313      **Description:** Conservation of Inorganic Archaeological Materials

**Full Course Description:** ll

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**Couse ID:** 110903314 **Description:** Conservation of Organic Archaeological Materials

**Full Course Description:** jj

**Couse ID:** 110903315 **Description:** Conservation of Earthen Structures and Clayey Artifacts

**Full Course Description:** kk

**Couse ID:** 110903316 **Description:** Conservation and Restoration of Archaeological Objects

**Full Course Description:** ll

**Couse ID:** 110903317 **Description:** Conservation of Vernacular Building

**Full Course Description:** ll

**Couse ID:** 110903332 **Description:** Archaeometry

**Full Course Description:** □

Introduction Archaeometry, its definition, and its history. Also the course explains the different physical and chemical analytical methods and it's suitability to the archaeological materials. Also discuss the implications of analytical results, how they relate to archaeological context and how they may answer some specific historical questions. □ Practical applications of the theoretical concepts of Archaeometry, examination and analysis as well as data acquisition, processing and interpretation.□

**Couse ID:** 110903333 **Description:** Analysis of Archaeological Inorganic Materials

**Full Course Description:** kk

**Couse ID:** 110903341 **Description:** Graphics and Its Applications in Heritage

**Full Course Description:** ll

**Couse ID:** 110903351 **Description:** Informatics and Archaeology

**Full Course Description:** "

**Couse ID:** 110903352 **Description:** Remote Sensing in Archaeology

**Full Course Description:** ;;

**Couse ID:** 110903371 **Description:** Introduction to Ancient Technologies

**Full Course Description:** ll

**Couse ID:** 110903411 **Description:** Ancient Environment and Site Formation Processes

**Full Course Description:** ll

**Couse ID:** 110903414 **Description:** Preventive Conservation for Archaeological Site and Artifacts

**Full Course Description:** kk

**Couse ID:** 110903432 **Description:** Study of Historical Buildings Stability

**Full Course Description:** "

**Couse ID:** 110903443 **Description:** Digital Archaeology

**Full Course Description:** kk

**Couse ID:** 110903444 **Description:** Evaluation and Rehabilitation of Heritage Sites

**Full Course Description:** hh

**Couse ID:** 110903451 **Description:** Archaeological Information Systems

**Full Course Description:** mm

Courses Description

College: Queen Rania'S Faculty Of Tourism& Heritage

Department: Archaeological Conservation Science

Couse ID: 110903491	Description: Seminar
Full Course Description: III	
Couse ID: 110903492	Description: Work Training
Full Course Description: hh	
Couse ID: 140903121	Description: Applied Sciences in Archaeology (1)
Full Course Description: ب	
Couse ID: 140903201	Description: Applied Sciences in Archaeology ( 2)
Full Course Description: ل	
Couse ID: 140903222	Description: General Chemistry for Archaeology
Full Course Description: س	
Couse ID: 140903312	Description: Conservation of Archaeological Objects
Full Course Description: ت	
Couse ID: 140903371	Description: Introduction to Ancient Technology
Full Course Description: 1	
Couse ID: 140903492	Description: FieldworkTraning
Full Course Description: ل	
Couse ID: 150903122	Description: Principles of Archaeology
Full Course Description: ي	