



جامعة الألمانية الأردنية
German Jordanian University

German Jordanian University
Deanship of Graduate Studies

Department of
Architectural Conservation

Masters of Science Program in
Architectural Conservation

Study Plan
Academic Year 2017/2018

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1. Introduction:

The diversity of the cultural resources of the region including Jordan is represented by historic monuments, towns and villages, urban and cultural landscapes that contain thousands of old and heritage buildings from different periods and context that pertain important historical, social, aesthetical, religious and cultural values and significance. Such buildings represent a dilemma both to their owners and to the government because the numbers of specialists who can deal with them are insufficient, and because there are no national rules or guidelines for dealing with them.

Therefore, there is a dire need to prepare specialists who can fulfill the gap between the needs of the society to preserve its built heritage and all the values associated with that and the needs of the owners who would need to add functional value to their properties. Currently, municipalities, mainly in the region, can't prevent the demolition of heritage buildings, because of the lack of an applicable regulatory framework concerning preservation and management of heritage buildings or there is no political support for any implementation. Thus, frequently untrained architects or even uneducated contractors conduct usually the conservation work with little or no understanding of the technical or ethical issues that should underpin how such work is carried out.

This program is designed to prepare well qualified specialists from the region including Jordan, who will be able to fulfill this missing function, and will increase awareness with fellow architects and the public about the importance of these sites and buildings and the need to conserve and use them in a sustainable fashion.

2. Objectives

The Architectural Conservation Program provides knowledge and understanding of architectural conservation, along with practical conservation skills to preserve buildings and heritage sites. Students with high school certificate/ scientific stream and bachelors degrees in architecture, interior design, cultural resources management, civil engineering, archaeology, or spatial urban planning can enroll in the program. It aims:

1. To develop an understanding of the attitudes and philosophies which underpin conservation.
2. To develop skills in observation, recording, documentation, analysis, understanding and evaluation of historic buildings and places so that students become more knowledgeable of, and sensitive to the built environment.
3. To develop skills to judge better the nature of required interventions and to increase the awareness of the appropriate professionals.
4. To be able to implement hands-on techniques in documentation, maintenance and repair.
5. To generate research and practice-based knowledge of relevance to architectural conservation; archaeological background; policy and practice within the work settings and/or the wider community.
6. To understand structural and material aspects of conservation: building materials, deterioration processes and repair materials.

3. Learning Outcomes:

A. Key knowledge

Architectural Conservation Program graduates will develop an understanding of the evolution of conservation approaches and theories regarding the built environment and the multi-disciplinary nature of the practice of conservation. They will be able to understand, interpret, explain, analyze, assess and implement various conservation concepts and techniques within historic and archaeological settings.

Assessments

Student achievement of this learning outcome is assessed:

1. [Directly] by evaluating M.Sc. Theses to assure that they reflect students' overall work in the program.
2. [Indirectly] by senior surveys and by program review data and job placement rates.

B. Skills

a. Graduates will be able to plan, evaluate, and implement projects related to conservation of the built environment

Assessments

Student achievement of this learning outcome is assessed:

1. [Directly] by reviewing samples of student work (research papers and analysis projects).
2. [Indirectly] by employer surveys.

b. Graduates will be able to undertake and investigate various research areas related to architectural conservation.

Assessments

Student achievement of this learning outcome is assessed:

1. [Directly] by reviewing samples of student work (working and research papers).
2. [Indirectly] by employer surveys.

C. Values

Architectural Conservation Program graduates will be able to assess their own strengths and weaknesses and adjust future performance in light of self-assessments.

Assessments

Student achievement of this learning outcome is assessed:

1. [Directly] by instructor evaluations.
2. [Indirectly] by student self-assessments and acceptance into leading Ph. D. programs.

4. Enrolment:

- Bachelors' Degree, with minimum merit of GOOD, in a relevant field.
- English Proficiency Test with minimum scores as requested.
- To have a scientific major high school certificate.
- Admission interview.
- Portfolio that demonstrates projects undertaken during study and practice.
- Short Research Statement.
- Three Letters of Reference.
- CV. illustrating the applicants' qualifications and experiences.

5. Degree requirements:

Classification	Credit Hours
Compulsory Requirements	24
Elective Requirements	6
Master's Thesis Research	9
Internship	1
Total	40

6. Curriculum for Masters of Science Degree in Architectural Conservation

1. Compulsory Requirements (24 Credit Hours):

Course No.	Course Title	Cr. hrs.	Lecture	Lab	Prerequisite
AC723	Conservation Philosophy, Theory and Practice	2	2	0	-
AC722	History of the Built Environment in the Region and the Fertile Crescent	2	2	0	-
AC755	Heritage Documentation and Survey 1	2	1	2	-
AC756	Building Pathology and Conservation Technology	3	1	4	-
AC757	Remedial Conservation and preventive approaches	3	3	0	AC756
SABE721	Research and Presentation Skills	2	2	0	-
SABE722	Technical Writing Skills	1	1	0	-
AC743	Conservation of Landscapes	2	2	0	AC723, AC756
AC758	Information Technology, Documentation Techniques, Analysis and Survey 2	2	1	2	AC755
AC715	Conservation Project	3	1	4	AC756
AC780	Management of cultural sites	2	2	0	AC723
	Total	24			

2. Elective Requirements (6 Credit Hours) to be chosen from:

Course No.	Course Title	Cr. hrs.	Lecture	Lab	Prerequisite
AC703	Special Topics in Architectural & Urban Conservation	2	2	0	-
AC702	Special Topics in World	2	2	0	

Heritage Studies					
AC744	Adaptive Re-Use approaches	2	1	2	AC756
AC786	Conservation Projects' management	2	2	0	AC780
AC784	Risk Preparedness & Management; in case of disasters, emergency and conflict resolution	2	2	0	AC780
AC785	Tourism Planning & Conservation	2	2	0	
Total Taken		6			

3. Thesis Requirements (9 Credit Hours):

Course No.	Course Title	Cr. hrs.	Lecture	Lab	Prerequisite
AC799 A	Master Thesis / Architectural Conservation	9	-	-	SABE722
AC799 B	Master Thesis / Architectural Conservation	0	-	-	SABE722
AC799 C	Master Thesis / Architectural Conservation	6	-	-	SABE722
AC799 D	Master Thesis / Architectural Conservation	3	-	-	SABE722 Second year
Total Taken		9			

4. Internship requirements

Course No.	Course Title	Cr. hrs.	Lecture	Lab	Prerequisite
AC711	Conservation Internship	1	0	6	AC757

Course Code

The digits have the following representation:

The left digit represents the course level.

The middle digit represents the specialized field of knowledge of the course:

- 0. Special Topics
- 1. Projects
- 2. Research Methodology, Theory and Society
- 4. Built up Environment (building or urban scale)
- 5. Technology
- 8. Management
- 9. Master's Thesis

The right digit represents the sequence of the course within the field.

7. Study Plan Guide for the Masters of Science Degree in Architectural Conservation

First Year			
First Semester			
Course No.	Course Title	Cr. hrs.	Prerequisite
SABE721	Research and Presentation Skills	2	-
SABE722	Technical Writing Skills	1	-
AC722	History of the Built Environment in the Region and Fertile Crescent	2	-
AC723	Conservation Philosophy, Theory and Practice	2	-
AC755	Heritage Documentation and Survey 1	2	-
AC756	Building Pathology and Conservation Technology	3	-
Total		12	

Second Semester			
Course No.	Course Title	Cr. hrs.	Prerequisite
AC743	Conservation of Landscapes	2	AC723, AC756
AC757	Remedial Conservation and Preventive approaches	3	AC756
AC758	Information Technology, Documentation Techniques, Analysis and Survey 2	2	AC755
AC000	Elective (1)	2	
AC000	Elective (2)	2	
Total		11	

Summer Semester			
Course No.	Course Title	Cr. hrs.	Prerequisite
AC711	Conservation Internship	1	AC757

Second Year			
First Semester			
Course No.	Course Title	Cr. hrs.	Prerequisite
AC780	Management of cultural sites	2	AC723
AC799	Master Thesis 1 / Architectural Conservation	3	2nd. YEAR

AC715	Conservation Project	3	AC756
AC000	Elective (3)	2	
	Total	10	

Second Semester			
Course No.	Course Title	Cr. hrs.	Prerequisite
AC799	Master Thesis / Architectural Conservation	6	2nd. YEAR
	Total	6	

8. Description of Courses

AC702 Special Topics in World Heritage Studies, 2 Crs.

This course allows specialized or in-depth study of a world heritage site(s) from the inscription criterion based on the Outstanding Universal Value (OUV), to tentative lists to planning for inscription process. It also allows to understand the challenges facing the conservation and management of WH sites in the Middle-East and the role of the different governmental agencies, local communities and Regional & International conservation communities and organizations. Students' interests and instructor's expertise help determine the topic.

AC703 Special Topics in Architectural & Urban Conservation, 2 Crs.

This course allows specialized or in-depth study of a supplementary subject in architectural and urban conservation. Students' interests and instructor's expertise help determine the topic.

AC711 Conservation Internship, 1 Crs.

This training/ internship will be conducted at research institutions, international organizations offering internship or training, our German partners and may also include architectural firms specialized in conservation. Students will work on real heritage conservation projects which may include documentation, rehabilitation, and adaptive re-use of buildings and different levels of conservation in addition to being part of research teams investigating various issues of interest to conservationists. Furthermore, students could participate in planning projects and surveys that are related to heritage conservation/management.

AC715 Conservation Project, 3 Crs.

This course is a platform where the accumulated knowledge base of the previous semesters is applied in a project, based on a selected cultural resource/ site that poses a challenge to our professional community i.e.: an archaeological site, or an architectural heritage complex threatened by urbanization, or destruction by war. This course shall provide an opportunity for the students to apply the different documentation and survey methods also to develop and implement a conservation plan. A risk assessment approach is encouraged during the project to define threats and risks. Also to assess impacts and finally provide the mitigation measures necessary for the implementation of the plan, while adopting a participative approach with the different stakeholders and in full partnership.

AC722 History of the Built Environment in the Region and the Fertile Crescent, 2 Crs.
This course aims to understand the evolution of socio-economic, spatial, architectural, and urban and rural environments within Jordan and the region concentrating on the recent past (last 250 years), with reference to the history of the earlier periods. The course also attempts to illustrate the significant contribution of the social sciences and archaeological research to a better understanding of the built environment. In its attempt to study the history of the built environment, the course philosophy rejects the concept of history as totalizing, and attempting to analyze moments of rarity and transformation in society, thus qualifying and granting voice to subjugated knowledge and realities, while uncovering mechanisms of hegemonic power and systemized control.

AC723 Conservation Philosophy, Theory and Practice 2 Crs.
This course provides analysis of the historical background including the development of the theoretical scope of architectural conservation. It aims to discuss concepts and terms that determine the field of contemporary conservation. The course also provides a survey of history, philosophy, and approaches of conservation and rehabilitation of cultural heritage at the scale of buildings and monuments and at an integrated scale of conservation areas as well. The course also presents the diversity of actors and agents, including institutions that are involved in heritage conservation internationally, regionally and locally.

SABE721 Research and Presentation Skills, 2 Crs.
This course provides students with theoretical and practical knowledge needed to write and present technical research papers. The course covers research norms, data collection tools and techniques, methods of evaluating information, data analysis techniques and data interpretation, quantitative (experimental, quasi-experimental, and survey) and qualitative studies (case studies, comparative analysis, field reconnaissance surveys, participant observation, and archival). The review includes all methods of observation and data collection with focus on measurements, reliability, validity, data analysis, interpretation, inferences, reporting, and research ethics.

SABE722 Technical Writing Skills, 1 Crs.
This course provides students with theoretical and practical knowledge needed to write thesis proposals and final Master's Thesis. The course covers preparation for thesis writing, thesis management, proposal rewriting, conducting oral and visual presentations, and teaching and training didactics.

AC743 Conservation of Landscapes, 2 Crs.
The course commences with a review of the progression of integrated conservation approaches worldwide, beginning single monument conservation and ending with conservation of whole areas and city cores. The course introduces different approaches and methodologies to urban conservation; including understanding the urban environment, conducting surveys and proposing different levels of intervention that are physical and non-physical in nature. The course also introduces the diversity of stakeholders involved in urban and cultural landscape conservation including local communities, guilds, commercial associations, owners, residents and local authorities (e.g. municipalities).

AC744 Adaptive Re-Use approaches, 2 Crs.
The course concentrates on the processes of adaptive reuse of buildings into contemporary uses and functions. It introduces theories of adaptive reuse of heritage and contemporary

buildings as a key factor in conservation. It further addresses design and planning with consideration of the entire life cycle of the building and its components in regard to ethics, economics, environmental impact, and performance. The course also deals with methods of analysis of heritage buildings and settings in relation to cultural aspects, socio-economic impacts as well as market oriented trends.

AC755 Heritage Documentation and Survey 1, 2 Crs.

This course aims to convey a comprehensive meaning of cultural heritage documentation beyond the production of measured drawings for buildings and sites to include photography, historic and archival research; and conducting thematic surveys. The understanding of documentation Sites or historic buildings and Monuments needs to be based on the different categories/types and components of documentation taking into account the internationally agreed standards for the documentation of the cultural heritage. Photographic, graphic documentation and digital documentation shall also be introduced. From hand survey, photogrammetry, to total station and up to photo modeler in addition to 3 d laser scanning applications shall be explored. Specific objectives include conveying thinking and analytical skills regarding documentation, such as identifying reasons and levels of surveys. The course also attempts to convey practical and technological skills including how to prepare for fieldwork and how to measure historic buildings, using conventional and advanced technologies. The course will depend on field projects to materialize such approaches.

AC756 Building Pathology and Conservation Technology, 3 Crs.

This course aims to provide information on the causes and agents of deterioration of historic buildings and building materials, documentation and classification of agents of deterioration based on international experience. The course addresses the subject of natural and anthropogenic causes of building deterioration reflected in disturbances and threats . Emphasis on building pathology, relevant documentation techniques leading to scientific diagnosis for the different reasons and technical aspects of deterioration will be made. Visual glossaries as part of the diagnostic features shall be explored based on work in the field. Lectures cover subsurface conditions, structural systems and related problems, wall and roof systems, and interior finishes, targeting performance, deterioration, and stabilization or intervention techniques.

AC757 Remedial Conservation and Preventive Approaches, 3 Crs.

This course will explore techniques and approaches to preventive conservation, including investigation and testing on site and researching various approaches to characterize, identify weakness and possibilities of interventions that will maintain the structural stability and cultural and historic authenticity of the building. The course introduces the characteristics of the variety of materials such as masonry -stone, brick, mortars, metal , glass and possible compatible materials used in conservation and restoration projects, and includes hands-on laboratory and field work in addition to field experiments.

AC758 Information Technology, Documentation Techniques, Analysis and Survey 2, 2 Crs.

The course investigates the implications of various information technologies on the practice of architectural and urban conservation. This course is concerned with the different methods for image-based 3D mapping and digital recording, visualization and heritage management, and Geographic Information System (GIS) applications in archaeological, architectural and urban

conservation and management. It introduces students to the various software packages in simulation to produce animated and digital reconstructions of buildings and sites.

AC780 Management of cultural sites, 2 Crs.

This course is concerned with basic methods, theories and principles of cultural site management. The course illustrates the process of cultural site management starting from cultural heritage identification, assessment and interpretation, and response and monitoring. The course focuses on management, planning, and decision-making for all types of heritage sites ranging from individual buildings, to historic sites and to whole cultural landscapes. Course material will draw on model approaches to management as well as on a series of local and international case studies, with the goal of understanding the practicalities of site management. Particular topics to be examined in greater detail might include conservation policy and interpretation, tourism, and economic development strategies.

AC784 Risk Preparedness & Management; in case of disasters, emergency and conflict resolution, 2 Crs.

This course is an advance course in risk assessment & management where both qualitative and quantitative methods are applied to identify disturbances, threats, risks and agents of deterioration. Case studies applying some of the state of art methodologies shall be applied for both the movable and immovable cultural resources.

Special attention shall be given for risks & conflicts in case of wars and the role of the different agencies and international treaties.

AC785 Tourism Planning & Conservation, 2 Crs.

This course provides students with the appropriate understanding of the relationship between the built environment and the complexity of tourism activities, and its impact on society and resources allocation. It covers various processes in tourism planning and development including government involvement, local communities, NGOs, and public-private initiatives. It also presents various planning approaches including resource-based and community-based tourism. This course also addresses the pressure of tourism on heritage resources including archaeological sites and discusses best practices for the protection of these assets. Field trips and field research will be utilized.

AC786 Conservation Projects' management, 2 Crs.

In this course students will acquire knowledge and skills to develop, manage, and evaluate projects in the field of conservation and rehabilitation of cultural heritage. It also provides information for skill development in the process in relation to business and management, including strategic planning, business plan development, managing client relationships, financial and legal issues, quality control, and professional ethics. This course also covers principles and methods of conservation and rehabilitation project management at the planning and implementation phases including execution of an interdisciplinary work program and budget, and establishment of a comprehensive organization covering all phases starting with the general assessment phase and ending with an effective guidelines for carrying out the implementation phase.

AC799 MasterThesis / Architectural Conservation, 9 Crs.

This course involves extensive research in architectural conservation. The Master's Thesis is based on field research and demonstrates student's background knowledge. A defense will be set to evaluate student's capabilities of carrying out research, with a focus on the analysis and interpretation of skills gained.

9. Tuition and fees

The following table gives a breakdown of tuition and fees at GJU:

Fees	Jordan Dinars
Credit hour fee	120
Other Fees	
Admission/Acceptance Fees	120
Refundable Collateral Fees	150
Registration Fees\ per semester	120
Computer Fees\ per semester	60

10. Contact information

For application and other enquiries, please contact:

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