Ministry of Higher Education and Scientific Research

University of Technology

Department of Architecture / Baghdad-Iraq

Academic Study Plan

1991

Postgraduate curriculum Master degree

MASTERS IN ARCHITECTURAL TECHNOLOGY

Curriculum

First Semester

Subject	Credits
1. Design of the **Building Environment I**	3
2. Urban Design	3
3. Building Construction Technology	3
4. Computer Applications in Architecture	2

Second Semester

Subject	Credits
1. Design of the Climatic Environment II	3
2. Building Systems	3
3. The Design of Open Spaces	2
4. The Architecture of Hot Regions	2

Course Description

1. Design of the Environment Climatic.

This course is the spine for the program establishing adequate knowledge in the basics of climatic design including human comfort, solar geometry, and its influence on the building form design, shading elements, solar heat gain in building, and the design of passive solar architecture.

2. Urban Design

Through a brief review of the theories and practices of urban design an appropriate context is provided for the program. Special emphasis is given on the climate of cities.

3. Building Construction Technology

Advanced knowledge in building technology is reviewed in the light of its role as a prime developer of architecture more suited to the local conditions. Stress is placed on the large scale building projects such as housing, schools and hospital buildings.

4. Computer Applications In Architecture

An introduction to the analytical and synthesizing possibilities provided by specific computer programs assisting in research problems included within the scope of the masters curriculum. The course also includes training in computer aided design. (CAD)

5. Building Systems

An introduction to building system, with special emphasis on Iraq's experience during the past three decades, industrialized building systems methods of production and construction, and the various problems of prefabricated buildings

6. Open Spaces Design

An introduction to energy efficient open space design within the general approach of passive solar landscape design. This includes the precision placement of trees and shrubs, and pergolas in the hope of minimizing heat gain in buildings and in the spaces surrounding them.

7. The Architecture Of Hot Regions

A review of the role of the climatic in shaping the architectural character of different regions, Special emphasis is given to the vernacular architecture of hot arid, climate, and hot humid zones of the world in general, and the Arab World in specific .

MASTERS IN THE DESIGN OF HUMAN SETTLEMENTS

Curriculum

First semester

Subject	Credits
1. Urban Design : Theories and Applications I	2
2. Evaluation and Analysis methods I	3
3. The Structure and Dynamics of Human Settlements	2
4. Design of the Climatic Environment	3
5. Elective module	1

Second Semester

Subject	Credits
1. Urban Design : Theories and Applications II	4
2. Evaluation and Analysis Methods II	3
3. Housing and Human Settlements	4
4. Communications and infrastructure	1

Course Description

1. **Urban Design : Theories and Applications   (I & II)**

    This course provides the spine for this masters program, it includes a review and discussion of the various urban design theories, with applications in the second semester through field investigation and studio work of an actual case study.

2. **Evaluation and Analysis Methods (I & II)**

    Introduction to analytical and synthesizing possibilities presented by specific computer programs assisting in approaching the different research problems included in the scope of the masters, program . In addition is an introduction to the basics of statistical analysis; and training computer aided design.

3. **The Structure and Dynamics of 'Human Settlements**

    An introduction to settlements based on the historical development of cities, their physical form and the socioeconomic influences forming its structure.

4. **Design of the Climatic Environment**

    Introduction to the basic components of climatic design within the larger regional context, and the local of the settlement. Building forms and clustering is examined solar geometry and wind dynamics. Applications include experiments in the heleodon and wind tunnel laboratories.

5. Housing and Human Settlements

Housing strategies and policies on the national level; with an evaluation of their interaction with urban and rural settlement development. Studio hours allow for the evaluation and development of a related field study.

6. Communication and infrastructure

A review of the interrelationships between communication and the various infrastructure networks of settlements, and landaus development policies.

Elective Courses

7. Implementation and Management Strategies

An introduction to the organizational and implementation strategies of planning policies of large housing projects urban rehabilitation, and rural development.

8. Urban Ecology

Settlements and their dynamic interrelationship with the regional ecosystem. The ecological approach to the design of settlements as a living component of the surrounding ecology.

9. Deign and Cultural Values

This course aims at creating awareness of the various social and cultural values entailed in the process of design through the assessment of selected field studies, the interrelation between the urban and architectural form   and aesthetic values are observed and evaluated.